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## (19) World Intellectual Property Organization International Bureau



### . | COLICE CONTROL | COLI

## (43) International Publication Date 27 December 2001 (27.12.2001)

#### **PCT**

## (10) International Publication Number WO 01/98916 A1

(51) International Patent Classification<sup>7</sup>: G06F 15/16

(21) International Application Number: PCT/US01/19780

(22) International Filing Date: 21 June 2001 (21.06.2001)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/213,211

21 June 2000 (21.06.2000) US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:

US

60/213,211 (CIP)

Filed on

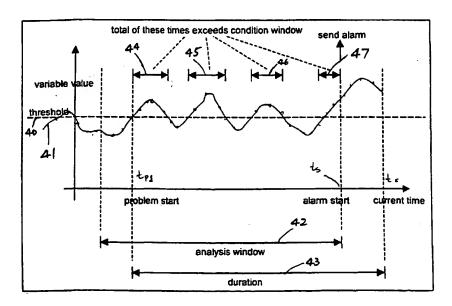
21 June 2000 (21.06.2000)

(71) Applicant (for all designated States except US): CON-CORD COMMUNICATIONS, INC. [US/US]; 600 Nickerson Road, Marlboro, MA 01752 (US).

- (72) Inventors; and
- (75) Inventors/Applicants (for US only): SYLOR, Mark, W. [—/—]; -. IGLESIAS, George [—/—]; -. WOLF, Jay, B. [—/—]; -. LAUER, Will, C. [US/US]; 118 Broadmeadow Road, Apt. E, Marlboro, MA 01752 (US). STABILE, Lawrence, A. [US/US]; 120 Commonwealth Road, Cochituate, MA 01778 (US).
- (74) Agent: PRAHL, Eric, L.; Fish & Richardson P.C., 225 Franklin Street, Boston, MA 02110-2804 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,

[Continued on next page]

(54) Title: LIVEEXCEPTION SYSTEM



(57) Abstract: A method of monitoring an element in a computer network including monitoring a preselected variable (41) relating to that element; defining a threshold (40) for the monitored preselected variable (41); establishing a sliding window in time (42); repeatedly generating a time above threshold value (40), the time above threshold value (40) being a measure of an amount of time during which the monitored variable (41) exceeded the threshold (40) during the sliding window of time (42); detecting when the time above threshold value exceeds (40) a condition window value; and in response to detecting when the time above threshold value (40) exceeds the condition windown, generating an alarm.



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#### WO 01/98916 A1



IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

#### Published:

with international search report

#### LIVEEXCEPTION SYSTEM

#### TECHNICAL FIELD

This invention relates to network monitoring, and more particularly to a system for identifying problems on a network, e.g. a large, widely distributed network.

#### **BACKGROUND**

In general, network elements include computing and storage devices, communication devices, software residing on these devices, etc. Examples are computes, disk storages, routers, switches, LANs, WANs, servers, and application software. Each element typically has a number of characteristics, or management variables, indicating its operating status. The management variables of an element are generally monitored so that problems occurring in the element can be detected and resolved. One approach for monitoring the elements is by polling. That is, a poller periodically gathers current status from the element being monitored. The gathered data is then sent to a processing unit that determines whether a problem has occurred in the element, and if so, a notification is generated.

Every network element provides a protocol for the poller to read and write its management variables. These variables are usually defined by vendors of the elements, and are usually referred to as a Management Information Base (MIB). There are some standard MIB's, such as the IETF (Internet Engineering Task Force), MIB I and MIB II. Through the reading and writing of MIB variables, software in other computers can manage or control the element. The software in other computers is usually called an agent. Thus, a network manager who is charged with the responsibility of locating and resolving network problems usually uses MIBs variables and agents to gather information from the elements.

Unfortunately, there is not a uniform MIB that can be used to manage a network consisting of elements supported by different vendors. Every MIB from every vendor uses a different set of messages to announce a network event, e.g. a fault. In general, these messages use a widely adopted messages format, known as a Simple Network Management Protocol (SNMP) trap. A network manager generally has to manually configure every element to generate SNMP traps properly. Even after traps are properly generated, there is rarely consistency in what each represents across different types of elements.

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In addition, the amount of data that is retrieved by the pollers can be overwhelming in volume. This volume of data can present a serious problem to the network administrator who needs to decipher the true significance of all of the information.

#### **SUMMARY**

At least in part, the invention is embodied in a LiveExceptions system, referred to herein as simply "LiveExceptions," which is a network management system designed to provide notifications of potential problems within networks, systems, and applications. Problems like high latency, unusual workload or failures often require the immediate attention of a network manager. However, it is sometimes very difficult to provide a timely and reliable notification, or alarm, when a problem occurs. The problem may go undetected due to lack of information regarding the problem source, or the alarm associated with the problem may go unnoticed due to the presence of too many other false alarms. LiveExceptions increases the accuracy of alarm generation by utilizing a comprehensive storage of historical data for every element in the network being monitored. With the historical data, LiveExceptions is able to adapt to the behavior of the element as time progresses, and to generate an alarm only when the behavior deviates from its norm. In some situations, an element's behavior is dependent upon the time of a day, and the day of a week, LiveExceptions takes advantage of this time-and-day dependence and further optimizes its adaptivity, thus increasing the overall accuracy of the alarm generation.

In general, in one aspect the invention features a method of monitoring an element in a computer network. The method includes monitoring a preselected variable relating to that element; defining a threshold for the monitored preselected variable; establishing a sliding window in time; repeatedly generating a time above threshold value; detecting when the time above threshold value exceeds a condition window value; and in response to detecting when the time above threshold value exceeds the condition window, generating an alarm. In this case, the time above threshold value is a measure of an amount of time during which the monitored variable exceeded the threshold during the sliding window of time.

Preferred embodiments include one or more of the following features. The method also includes after generating an alarm, maintaining the alarm at least as long as the time above threshold value exceeds a clear window value. The clear window value is equal to the condition

window value. The method also includes monitoring a plurality of variables relating to the element; and for each of the plurality of monitored variables, defining a corresponding threshold for that other variable, wherein the time above threshold value is a measure of an amount of time during which any one or more of the monitored variables exceeded its corresponding threshold during the corresponding sliding window of time. The step of defining the threshold for the preselected variable involves computing an average value for the preseleted variable based on values obtained for the preselected variable over a corresponding prior period; defining an excursion amount; and setting the threshold equal to a sum of the average value plus the excursion amount. The corresponding period of time is less than a day, e.g. a particular hour period of a day. The step of computing the average involves computing a mean value for the preselected variable using values obtained for that preselected variable for the same hour period of the same day of the week for a predetermined number of previous weeks. The step of defining an excursion amount involves computing a standard deviation for the preselected variable based on values obtained for the preselected variable over a predetermined period of time; and setting the excursion amount equal to K times the computed standard deviation, wherein K is a positive number. The step of computing the standard deviation involves computing the standard deviation using values obtained for that preselected variable for the same hour period of the same day of the week for a predetermined number of previous weeks. The step of defining the threshold for the preselected variable involves defining an excursion amount; and setting the threshold equal to H less the excursion amount, where H is a positive number. The step of defining an excursion amount involves computing a standard deviation for the preselected variable based on values obtained for the preselected variable over a predetermined period of time; and setting the excursion amount equal to K times the computed standard deviation, wherein K is a positive number.

In general, in another aspect, the invention features another method of monitoring an element in a computer network. The method involves defining for that element a profile that includes a plurality of different alarm rules, each of which establishes an alarm test for a corresponding one or more variables. It also involves detecting when the alarm test for any one or more of the plurality of different alarm rules is met; repeatedly generating a time above threshold value that is a measure of an amount of time during which any one or more of the alarm tests has been met during a preselected prior window of time; detecting when the time

above threshold value exceeds a condition window value; and in response to detecting when the time above threshold value exceeds the condition window, generating an alarm.

In some preferred embodiments, the method also involves, after generating an exception, maintaining that exception at least as long as the time above threshold value exceeds a clear window value.

In general, in still another aspect, the invention features a method of displaying on a computer display screen historical performance of an element on a network. The method includes monitoring performance of the element; for each of the plurality of time slots, deriving a measure of performance for the element from its monitored performance; for each of a plurality of time slots, computing an average value for the measure of performance of the element; and, for each of the plurality of time slots, computing a variability for the measure of performance; on the computer display screen and for each of the plurality of time slots: (1) displaying a first indicator of the computed average value for that time slot; (2) a second indicator of the computed variability for that time slot; and (3) a third indicator of the derived measure of performance for that time slot.

In general, in another aspect, the inventions features programs which implement the functionality described above.

The details of one or more embodiments of the invention are set forth in the accompanying drawings and the description below. Other features, objects, and advantages of the invention will be apparent from the description and drawings, and from the claims.

#### **DESCRIPTION OF DRAWINGS**

- Fig. 1 is a block diagram of the LiveExceptions problem detecting and reporting system.
- Fig. 2 is an example of a MIB Transformation File (MTF) that is stored in the poller module.
- Fig. 3 illustrates the relationships among alarm rules, profiles, groups, group lists and exceptions.
  - Fig. 4 illustrates the determination of the severity of the alarm.
  - Fig. 5 illustrates the time over threshold algorithm.
  - Fig. 6 illustrates the dynamic time over threshold algorithm.

Fig. 7 is an example of a browser screen for displaying the network performance information to the user.

Fig. 8 is an example of an alarm detail report.

Fig. 9 shows a computer system on which the LiveExceptions can be implemented.

Like reference symbols in the various drawings indicate like elements.

#### **DETAILED DESCRIPTION**

#### The LiveExceptions System: A General Description of its Components

The overall structure of the LiveExceptions problem detecting and reporting system 10 is shown in FIG. 1. System 10 has a poller module 110 that gathers data from MIB variables of elements in a data source 160 (e.g. a network). The data from each of the MIB variables is then transformed into intermediate data by poller module 110 and stored in a database module 120 for trend report generation. Database module 120 includes a data storage unit 121, which stores the intermediate data; and a baseline calculation unit 122, which converts some of the intermediate data into variables meaningful to a user, computes statistics of the variables, and sends the computed statistics back to data storage unit 121. Whether statistics are computed depends on rules stored in a LiveExceptions Engine (LE Engine) 100.

A transformation function implemented in poller module 110 normalizes the raw data received from the network. The normalized data represents a more condensed form of the data than the original raw data received from the polling. On each poll, poller module 110 sends the normalized data to LE Engine 100, which in turn retrieves the computed statistics from data module 120 when appropriate.

The statistical calculations that are required by some of the rules generally, but not always, involve computing statistics such as the 1<sup>st</sup> and 2<sup>nd</sup> moments. The rules in LE Engine 100 specify the particular variables of interest for which such statistics are to be computed. Since the computed statistics usually sufficiently characterize the relevant variables of interest, using the computed statistics, instead of the raw data or the normalized data, tends to increase the accuracy in problem detection in a wide variety of situations. In addition, the statistics take up much less storage space than do the normalized data from which they are derived.

In the described embodiment, poller module 110 typically polls the MIBs from which it retrieves as often as once every 5 minutes and it stores and maintains six weeks worth of the polled data. Of course, the polling frequency and the period for which data is collected can vary widely depending upon the requirements of the network manager. In any case, considering the large number of variables that would typically be monitored, the volume of data, even when stored in the condensed form, can take up a significant amount of storage space.

#### The LE Engine

LE Engine 100 receives normalized data from poller module 110, and statistics from database module 120. LE engine 100 computes values for the monitored variables from the normalized data. The computed variables are defined in label tables stored in LE Engine 100. It then compares those computed values to statistics that were computed for those variable according to particular rules which apply, and determines if a problem has occurred in the element from which the polled data was retrieved. If the comparison indicates the existence of a problem, LE Engine 100 generates an alarm or a number of alarms, each of which indicates a problem relating to the monitored network elements. After a problem is detected and an alarm is generated, that alarm is sent to an exception data store 150 and also to a Network Management System (NMS) 170 in the form of a SNMP trap. System 10 further includes a web server, which receives the alarm from exception data store 150 and forwards it to an event viewer 130. Event viewer 130, which is a GUI browser, displays the alarm in a Network Operation Center (NOC) 135 and on various network manager workstations so that the problem can be quickly identified and responded to by a network manager.

#### Configuring the LE Engine

LE Engine 100 is the core processing unit of system 10. For LE Engine 100 to operate according to desired rules for selected elements, a number of items and parameters need to be defined for it, such as elements, variables, alarm rules, and length of observation time. These items and parameters are defined in configuration files stored in LE Engine 100. System 10 has a set of predefined configuration files that are suitable for various situations. But it also allows a user to customize the configuration files to satisfy particular user needs.

#### Configuration change

A user makes configuration changes through an administration interface 190 or a configuration module 180, or the user can import a file containing required configuration changes. Upon receiving the changes, LE Engine 100 updates the states of its internal data structures to reflect the changes while continuing its normal operations. After the changes are implemented in the configuration files, LE engine switches to the new items and parameters without having to re-start or re-compile.

In the described embodiment, Engine 100, poller module 110, database module 120, exception data store 150, web server 140 and configuration module 180 are housed in a single unit or compartment.

#### Variable Evaluation

If there is a problem with an element in the network, the problem is detected by evaluating variables associated with that element. The evaluation is based on a number of factors, which generally include polled data gathered by poller module 110, historical information from database module 120, and a number of pre-defined rules. Each of these factors will be discussed as follows.

#### Two-stage Transformation -- The MTF

Poller module 110 polls MIB variables at a pre-defined rate, e.g. every 5 minutes, by using their Object IDs (OIDs). Each of the OIDs points to a unique MIB variable. The polled MIB variables are then combined so as to remove redundant information. The pre-defined normalized forms and the transformations between the normalized forms and MIB variables are defined in a MIB Transformation File (MTF) 111 stored in poller module 110. MTF's are used in connection with the commercially available Network Health product sold by Concord Communications, Inc. and documentation generally describing MTF's is provided for that product.

#### The MTF data types

MTF 111 is used to transform a MIB variable into a normalized form. A number of normalized forms are pre-defined for each element type, for example, Ethernet, Token Ring, WAN, Frame Relay, Asynchronous Transfer Module (ATM), remote access devices, routers,

servers, etc. The normalized form has two data types: counters and gauges. A counter is a non-negative integer which monotonically increases until it reaches a maximum value, after which it wraps around and starts increasing again from zero. Examples of a counter generally include number of bits, number of seconds in latency, or number of frames. A gauge is a non-negative integer which may increase or decrease, and examples of a gauge generally include percentage of bandwidth utilization, collision percentage and percentage of bad polls.

#### The MTF format

Referring to Fig. 2, an MTF 111 is an ASCII text file defining a transformation for a MIB that needs to be translated. MTF 111 includes three main sections: a support information section 21, a data source information section 22, and a translation information section 23. Support information section 21 includes a file name for the MIB being translated by this MTF, a MTF version number, and parameters that indicate whether an element defined in the file name is polled, how it is polled, and how it is reported. Data source information 22 provides information concerning response elements. It indicates the type of data that poller module 110 collects as well as configuration parameters and protocols used by the element. Translation information section 23 contains a number of expressions, or equations, that map MIB variables to normalized forms.

#### Extensible feature

An appealing feature of MTF 111 is its extensibility. As described before, a network system usually includes elements from different vendors, each defining and organizing its proprietary MIB variables in a proprietary way. By using the normalized forms defined in an MTF 111, a user is able to integrate standard and proprietary MIB variables into the same format for analysis and reporting.

When an element from a new vendor needs to be integrated into the existing network, a user simply writes an MTF 111 utilizing default or customized normalized forms to define the transformations for the MIB variables associated with the element.

#### **Efficient Storage**

A single normalized form is usually used by MTF 111 to convert many MIB variables. Typically, the number of normalized forms is less than thirty for each element type, i.e., a

number that is typically far less than the number of the different MIB variables poller module 110 handles.

The following example illustrates the concept of using normalized forms to achieve reduced storage requirements. Five MIB variables, MV1, MV2, MV3, MV4 and MV5 are mapped to three normalized forms NF1, NF2 and NF3. The five variables are computed as a combination of the three normalized forms. Because the three normalized forms contain sufficient information to produce the five variables, it is therefore only necessary to store NF1, NF2 and NF3 in the database and the transformations, i.e. Eq. 1 to Eq.5, in MTF 111.

MV1 = NF1 + NF2	(Eq. 1)
MV2 = NF2 + NF3	(Eq. 2)
MV3 = 2*NF1 - NF2	(Eq. 3)
MV4 = 3*NF1 + NF3	(Eq. 4)
MV5 = NF1/NF3	(Eq. 5)

#### Two Stage Transformation - The Label Tables

Referring again to Fig. 1, when historical information is needed, LE Engine 100 retrieves it from database module 120. The retrieved information is normalized data, and LE Engine 100 further translates it into a variable more meaningful to the user. The variable is assigned a unique label, and a row in one of a set of the label tables 102(1-n), referred to herein generally as label tables 102. The variable in label table 102 represents a characteristic of an element that is typically more meaningful to users than MIB variables. For example, variables in the label table 102 might include bandwidth, percentage of utilization, number of errors, bits\_in, bits\_out, just to name a few. Label tables 102 in LE Engine 100 store the conversions between normalized forms and these variables. The same label tables 102 are also stored in database module 120 and are used by baseline calculation unit 122 to also compute needed statistics.

In short, the variable that a user sees displayed in NOC 135 has typically undergone a two-stage transformation: it was transformed from a MIB variable to normalized data, and then from normalized data to the variable. A simple example illustrating the value of performing such transformations is as follows. In the MIB, the agent stores "good frames received" and "bad frames received". MTF 111 normalizes those to "frames received" as a count by summing the two counts. Label table 102(1) then takes "frames received" and divides by a delta time to obtain the "frames in rate" measured in frames/sec. Another label table 102(2) takes "bytes received"

and divides by "frames received" to derive the "average frame size". Thus, similar to the concept of reusing the normalized form in MTF 111, a single normalized form is usually used by label tables to compute multiple different variables.

The various label tables that have been defined for LiveExceptions are presented in Appendix A attached hereto.

One advantage of using label tables is that they make adding or deleting variables in reports much easier. When a user makes a new variable available to reports, he only needs to add a new label in the one of the label tables for that variable and this avoids having to modify other modules in the system. Similarly, a variable can be deleted by only having to modify a label table and not other modules.

#### **Exception Generation**

After LE Engine 100 receives the polled data from poller module 110 and converts it into a variable by a transformation defined in a corresponding one of the label tables, LE Engine 100 applies a rule to the variable to determine if a problem associated with that variable has occurred. If the problem has occurred, LE Engine 100 sends a notification to inform network managers. The notification is in the forms of a SNMP trap and an alarm. Alarms can be consolidated to signify a problem associated with a number of related elements. These alarms form an alarm set, which is call an exception.

The detection of a problem is specified in the LiveExceptions system via the alarm rule. Alarm rules are of two types, namely a simple alarm rule and a compound alarm rule. The simple alarm rule describes a condition which must be satisfied by a single variable defined on a single element. The user may specify:

- The element type
- Selection of an alarm based on variable, reachability or availability
- A variable (e.g., BandwidthUtilization or TotalErrors)
- An analysis window
- A condition window
- Whether to watch for time over threshold, time under threshold, or unusual value above, below, or outside (above or below) the mean.
- An alarm severity: normal, warning, minor, major, critical

Each of these is described more fully below in connection with two examples of specific alarm rule types.

The compound alarm rule is a conjunction of two or more simple alarm rules. Users may select this conjunction via a GUI which is provided in the system. A compound alarm rule allows the specification of a different variable and thresholding condition on the same element.

Conjunctive rules implement an "and" of two sets of simple rule conditions. At each poll of the data variables, both variables of the two rules must meet their defined threshold conditions in order to add to the accumulated condition window time. For example, if the compound rule specifies a 5 minute out of 60 minute time condition, then if at a poll both variables are above their thresholds, 5 minutes will be added to the accumulated alarm time. If only one of the variables is above its threshold, no time will be added.

To make the alarm rules useful, they are applied to the data generated by an element. It would be very cumbersome for the user to specify each desired alarm rule to be applied to each desired element, so the system provides for alarm rule profiles. A profile 320 is applied to a group 330 or a group list 30 of elements. Profile 320 is typically defined for some specific technology and use. For example, a profile can be defined for a group of elements that form a backbone ATM WAN link. Every profile is populated with rules that detect problems associated with a specific use.

System 10 provides a number of predefined profiles that are applicable to a wide variety of element groups found in industry. Administrators can also define profiles that describe the criteria by which they want to manage their network. The kinds of profiles and problems each profile detects generally include:

- Delay profiles, which raise an alarm when an element is contributing to delay, either by being over utilized, or if we detect congestion.
- Failure profiles, which raise an alarm when an element in the associated group is down. They also raise an alarm if the relevant element is suffering too many errors and thus has effectively failed, or if it is in danger of failing, e.g. it is running out of some key resource.
- Unusual workload profiles, which raise an alarm if the workload presented to an element, or the work done by an element is unusual when compared against a historical time period.
- Host latency profiles, which raise an alarm if the latency to a host is unusually high, or beyond any reasonable limit.

Response profiles, which raise an alarm if response time problems are detected. Each profile is described in a separate table, with an entry in the table for each alarm rule (or set of closely related rules).

In addition to a set of predefined profiles which are provided with the system and which are applicable to a wide variety of situations found in industry, users can also create their own profiles. A list of profiles that are supported in the described embodiment are presented in Appendix B, attached hereto.

In general, a profile is typically defined for some specific technology and use, such as backbone ATM WAN links. Each profile is typically populated with rules which detect conditions appropriate to this use. Exceptions are tied to elements and profiles to distinguish the status of an element with respect to these uses. Each such exception/profile pair is displayed as a separate row entry in the LiveExceptions browser. For example, suppose a frame relay link endpoint element is defined, Acme-NY-Boston-link-5. Further, suppose we are measuring the latency from this endpoint to its far end, and that we are also measuring the dropped frames from this endpoint. Rules which define conditions on these variables exist in two profiles, FrameRelayLinkLatency and FrameRelayLinkDroppedFrames. Each of these profiles has different consequences for SLA issues, and each will show exceptions separately:

Element	Severity	Description	Profile
Acme-NY-Boston-link-5	Critical	Dropped Frames Exceeds 2%	FrameRelayLinkDroppedFrames
Acme-NY-Boston-link-5	Major	Latency Above 100 msec	FrameRelayLinkLatency

In the above example, the increase in dropped frames is more likely to lead to a user's inability to utilize agreed-upon bandwidth. A high latency, while an important indicator of performance, does not necessarily lead to the loss of throughput which would violate an SLA. Were these exceptions combined as an overall element status (without regard to profile), this distinction would not be readily apparent.

A profile is applied to a group of elements or a group list via a Subjects-to-Monitor dialog in the LiveExceptions Browser. This has the effect of applying each rule in the profile to each element in the group which matches the element type of the rule.

Groups and group lists are known concepts in the field of network monitoring. In general, a group is a list of elements that might have some feature or technology in common, e.g.

they might be a set of elements of a similar technology (e.g. disks). A group might also be some combination of elements for which a network manager would want to learn similar types of information. A group list is a collection of groups that might have a more general relationship to each other, e.g. different storage device types.

Once profiles and groups are associated with each other, the LiveExceptions system begins to monitor the flow of polled data from the specified elements and generates alarms accordingly.

Referring to Fig. 3 visually depicts the relationship among alarm rules, profiles, groups and group lists. LiveExceptions includes a family of algorithms 300 for detecting problems. Algorithms 300 are implemented in LE Engine 100 as background processes that monitor the data collected by poller module 110. Algorithms 300 are invoked by alarm rules 310 that are written in a profile 320. A profile can be applied to a group or a group list. In Fig. 3, profile 320 is applied to a group list 30, which includes a number of groups 330(1-n). Each group usually represents a specific use, while group list 30 usually represents a more general use. Profile 320, together with the associated groups 330 group list 30, instruct LE Engine 100 on which elements to monitor, and when to raise alarms. Alarm rule 310 is defined on a problem detection algorithm 300, and in addition, it also contains a set of parameters 320 that control the algorithm, such as thresholds, analysis windows (i.e. baseline periods), and condition windows, etc.

Fig. 3 also depicts a compound alarm rule. In the illustrated example, alarm rule 310A is AND'ed with alarm rule 310B to form a compound alarm rule 310F. This compound rule raises an alarm only when all simple alarm rules in the compound rule calls for an alarm to be raised.

An exception 340 combines all the alarms generated within profile 320 and produces a single output at a given time. When exception 340 occurs, LE Engine 100 sends a trap to NMS 170, and also causes it to be displayed on event viewer 130. An alarm has a number of severity levels, each level is defined in terms of the amount that a value deviates from its normal value. The severity of an exception is the maximum severity of all individual alarms defined within the corresponding profile.

An exception combines the states of one or more alarms defined on an element. The severity state of an exception is the maximum severity of all the alarms currently active on an element, within a given profile. When no alarms are active on an element, the first alarm to be raised generates an exception. Thereafter, subsequent alarms raised and cleared simply change

the severity of the exception. When the last alarm constituting an exception clears, the exception itself is said to be cleared.

Referring to Fig. 4, two alarms a1 and a2 are defined on an element. a1 is a minor alarm, and a2 is critical. The following events ensue:

- When all is raised, an exception is generated with severity minor.
- When a2 is raised, the exception is updated to severity critical.
- When al clears, the exception severity remains critical.
- When a2 clears, the exception is cleared.

#### **Alarm Rule Algorithms**

#### Time Over Threshold

One key approach to detecting problems involves using the history of the monitored data. A particularly simple way of doing this is illustrated by the time over threshold rule, the operation of which can be more easily understood by referring to Fig. 5. In general, as LiveExceptions accumulates polled data for a particular varable, LE engine 100 looks at that data over an interval of time, referred to as an analysis window 42, which in the described embodiment is typically an hour though it could be longer or shorter depending upon the circumstances and performance needs. LE engine 100 compares the data values in this interval with a predefined threshold 40, and computes the total time that the value is over the threshold. In the illustrated example, the accumulated time is the sum of intervals 44, 45, 46 and 47. If this total time is greater than a predefined amount, referred to as a condition window, LE engine 100 raises an alarm and sends out a trap to the NMS.

The wall time at which an alarm is raised is the alarm start time,  $t_s$ . The wall time at which the data value initially crossed the threshold that subsequently led to the alarm is the problem start time,  $t_{p1}$ . The time from the problem start time to the current wall time is the duration 43 of the alarm. Through its browser interface located in the event reviewer, LiveExceptions displays each of these times to the user.

When an alarm is raised, it is said to be active. Analysis continues using the same parameters which induced the raising of the alarm. The alarm continues in an active state until its conditions are no longer satisfied, at which time the alarm is cleared, thus becoming inactive.

As time progresses, as long as the total time over threshold 40 in analysis window 43 still exceeds the condition window, the alarm remains active but no further traps are sent to NMS. LE Engine 100 clears the alarm when the accumulated time over threshold 40 in analysis window 43 no longer exceeds the condition window. When the accumulated time no longer exceeds the condition window, LE Engine 100 sends another trap to the NMS notifying it that the alarm condition is now cleared.

It is important to note that the analysis window 42 continues to slide along the time axis after an alarm becomes active, continuing to watch for time over threshold conditions as time advances. This means that the alarm will not clear capriciously, reducing the probability of "flapping" alarms – those which continually assert themselves even though a troublesome condition has been posted and is well known by operators.

While simple, the time over threshold rule is very powerful. Transient problems – brief spikes in the data – do not raise an alarm. However, recurring spikes do raise an alarm. This draws an important distinction between quick spikes which would be mere annoyances should they trip an alarm, and a series of such spikes which should demand attention. In addition, continuous time spent over the threshold also raises an alarm, indicating a persistent condition that should be corrected.

As indicated previously, at least the following parameters are settable by the user through the interface or by other means:

- Threshold which is the data value above which time is accumulated.
- Analysis Window which is the time interval within which time is accumulated.
- Condition Window which is the total time required to be spent by the data value above the threshold which causes an alarm to be raised.

In addition, LiveExceptions enables a user to select, through different rules, variations on the time over threshold theme, as will be discussed below.

Note that the actual monitored data is in the form of a series of individual data points, with a data point for each polled period. However, for visual effectiveness, the user interface displays these not as individual data points but rather as a line graph interconnecting the individual points.

#### Time Over Threshold for Availability and Reachability

The basic time over threshold rule is modified to determine the reachability or availability of an element.

Availability and reachability are important special cases in the LiveExceptions rule definitions. Reachability is defined as the ability of the poller to communicate with the device containing an element. To be reachable, a device must respond to ICMP pings. An indicator of whether a device is reachable is generated by the poller for use by the LiveExceptions system on each poll of the device.

Availability is more complex. Its definition is time-dependent. The poller assesses properties of the device such as reboots (via sysUpTime), and ifOperStatus (or equivalent), when defined by the device. Availability is generally not known by the poller until it successfully polls the device, so an immediate value is not always obtainable on each poll.

The availability algorithm detects when an element is unavailable. LiveExceptions clears the alarm once it becomes apparent from the polled data that the element has been up for at least the length of the window defined in the alarm rule. In this case, the purpose of the window is to raise a single alarm when an element is "bouncing" up and down repeatedly.

For hosts, routers, switches, servers, and remote access servers (RAS), when the host goes down, it will not be possible to ping or poll the host's agent. This will be seen as a Reachability problem first. Later, when the host reboots and comes back up, it will be possible to ping and poll the host's agent again. At that point, LiveExceptions will see that the host has rebooted, and was down, and will raise an alarm at that time.

When the child elements within LAN and WAN interfaces, modems, ISDN, CPUs, disks, partitions, processes, process sets, and response paths hosts, go down, the host's agent may remain up and can be pinged and polled. In those cases, LiveExceptions can detect that the child has gone down when it polls the element, and will raise an alarm immediately.

Reachability is defined by whether or not an element can be pinged, i.e. if a query can reach an object and its response can be received. Availability is determined by whether or not an element is functioning, i.e. it is up or down. A non-reachable element will generate an alarm at the moment when poller module 110 is unable to reach it, but the alarm is cleared only after the element becomes reachable again for the amount time specified by the analysis window. Availability works in the same way.

The reachability algorithm detects when a ping of an element's agent IP address fails.

For hosts, when the host goes down, the agent address stops responding to pings and a reachability alarm is immediately raised for the host. The normal sequence of events when a host goes down is:

- 1. The host goes down.
- 2. The host's agent IP address is pinged, the ping times out and the ping is retired. When all the tries time out, the ping fails and a **Host Unreachable** alarm is raised.
  - 3. Eventually, the host reboots and comes back online.
- 4. The host's agent IP address is pinged and the ping succeeds. The host' agent is then polled and it is learned that the host rebooted, and that the host was unavailable for some time. A **Host Down** alarm is raised at that point.
- 5. If pinging of the host's agent IP address succeeds for a continuous time equal to the window defined in the rule, the reachability alarm is cleared.

Most child elements within a host, have the same agent IP address as their host parent. An IP address is only pinged once, and the results of that ping are used for all the elements with the same address. All the children have the same reachability as their parents. The default profiles therefore do not define reachability alarm rules for children. Instead these are limited to parent hosts.

This modified rule is simpler than the basic time over threshold rule because it does not require a threshold. When an element or an application is down, it immediately generates an alarm. Furthermore, in a real system, it is common for an element or an application to go through cycles of ups and downs. The modified rule, like the basic rule, is able to consolidate the problematic behavior and reports it to NMS 170 in one trap

#### Time Over Dynamic Threshold (i.e. Unusual Value Rule of Dynamic Rule)

The simple time over threshold rule uses a constant threshold value. A time-varying threshold – one that depends on historical data – is also used in a number of other rules. One such variation defined by LiveExceptions utilizes the "normal" value for a variable at a given time of day.

Over a period of time, a series of data values will possess a distribution among the values presented. A distribution is normally summarized by its mean and standard deviation, concepts

derived from the normal or "bell curve" type of distribution commonly found in many kinds of statistical measurements. The statistical standard deviation is a particularly useful indication of deviation from a normal value. The mean is simply the average value over the set. The standard deviation measures the average "width" of the deviation of the values from the mean. It is a measure of the likelihood that a particular series of values will "veer off" from its current trajectory. Sometimes, users wish to know when a value plus its standard deviation are above some threshold, i.e., when the value is getting "too close to the edge." This is the idea behind the time over dynamic threshold rule or unusual value rule.

LiveExceptions stores a normal (or baseline) value for each hour of the day, computed as the average value for that hour over the preceding six weeks. In the case of the time over dynamic threshold rule, LiveExceptions compares the current data value to the normal value. Alarms are defined on the normal value and indicate that a certain amount of time was spent beyond a given deviation from the normal value.

This is expressed in LiveExceptions as a percentile. The percentile of a set of values with respect to a given value is the percentage of the number of values in the set which are below the given value. For example, we might say that "50 is the 90<sup>th</sup> percentile value", meaning that 90% of the values in a set are below 50. This is an accurate statement of real multiples of standard deviation as well.

In other variations of this rule type, LiveExceptions also allows the user to specify deviations by an ordinary percentage and by an absolute value.

Detecting an "unusual" value of a variable is illustrated in FIG. 2. The main difference between this type of rule and the time-over-threshold rule previously described is that the threshold varies with time. However, note also that contribution to the time over threshold in this case is not simply that the data value exceeds the threshold but it must exceed that threshold by the specified deviation as well.

Fig. 6 illustrates graphically how the dynamic time over threshold rule works. The dynamic time over threshold algorithm includes a normal value 51, i.e. a dynamic threshold value, an analysis window 52 and a condition window (a pre-defined fixed value, not shown). Normal value 50 is the value a data series cannot deviate by more than a certain amount, analysis window 52 is a sliding interval of time, and the condition window is a time threshold for the accumulated time during which the variable exceeds the mean by the predetermined amount (e.g.

the sum of time intervals 54, 55, 56 and 57). The alarm generation process is similar to that used for the time over threshold rule illustrated in Fig. 5. One major difference between this rule and the time over threshold rule is that threshold 40 is replaced by a time-varying normal value plus a "deviation."

The time over dynamic threshold rule was initially developed to provide a good indication of potential disk space exhaustion. Since running out of disk space is possibly catastrophic, the user should be warned if there is a high probability that this space will be used up soon. This rule accomplishes precisely this, since the standard deviation is a good measure of how widely space usage is likely to swing over some time period. The user-defined threshold in this case is 100%. The default LiveExceptions profiles encode disk space rules using the time over dynamic threshold rule.

However, the time over dynamic threshold rule may be useful in any situation where exceeding some hard limit would have catastrophic results, or would in some manner ruin your whole day. Examples of such variables might be memory usage, bandwidth utilization for SLA, or utilization of a set of dial-in lines.

When defined on the appropriate variables, unusual value alarms provide an excellent indicator of possible system problems. For example, a high traffic rate on a router interface late at night may indicate a runaway program attempting to communicate with a remote server. Or, a high CPU utilization on a normally little-used workstation could inform operators of a change in use or of an inappropriate program running on the machine. In either of these cases, remedial action or an increase in capacity may be called for.

There are two ways to look at this rule. One is to reduce a user-defined threshold by the standard deviation, and use the result as the actual threshold with which to compare the data value. Since the standard deviation is computed dynamically from the data, this gives rise to the "dynamic threshold" term in the rule's name. The idea can be summarized by the following simple formula for determining when a value is over the threshold:

DataValue > UserThreshold - StandardDeviation

Another way to look at this rule is by the "too close to the edge" analogy. Rearranging the formula slightly provides this viewpoint:

DataValue + StandardDeviation > UserThreshold

Note that this rule differs from simply defining a reduced threshold in that the reduced threshold is computed automatically, keeping track of day-to-day swings in usage of the variable. There is thus no need for the user continually to adjust the threshold to the desired level of sensitivity.

#### Absolute from Mean Rules

Using an absolute from mean detects when a variable is above or below the mean by a pre-defined fixed amount. This rule is most useful for detecting when a value has changed from a fixed or a stable configuration. For example, it can be used to detect when a file system has been reconfigured and its capacity has been changed.

#### Percentage from Mean Rules

Using a percentage from mean detects when a value is above the mean by a percentage. For example, a 100% above the mean rule detects when the variable is twice its mean value. This rule is useful for detecting changes in a value, in proportion to the average value.

#### **Deviation from Mean Rules**

Using a deviation from mean detects when the variable is above the mean by a dynamic percentile. The percentile is computed dynamically based on the standard deviation. A user can specify a percentile parameter in the rule to indicate how far a value can deviate from its mean to stay within the normal range. The higher the percentile, the further from the mean the value must be to raise an alarm. Deviation from mean dynamically determines both the mean and the acceptable variations of the data. It adapts to cases where the mean changes but the variable stays very closely to the mean (i.e. a small standard deviation), and also to cases when the mean remains the same, but the variation from the mean is wide.

Algorithms can be combined. For example, the deviation from mean algorithm can be combined with the percentage from mean algorithm to prevent small divergences from normal from generating alarms.

#### Time Over Dynamic Threshold with Time of Day and Day of Week

Analysis window 52 for the dynamic threshold rule need not be constant in time. In fact, for a wide variety of network elements, the statistics of the associated variables tends to vary,

depending on the time of a day, and the day of a week. For example, an Ethernet element in an office building typically has a higher usage during office hours in a weekday than an early morning hour on Sunday, and accordingly the percentage of packet collision fluctuates in the same way.

Therefore, the polled data for certain variables are grouped by the time, typically the hour, and the day in which they are collected. The statistics of the variables for that hour are computed and later combined to form the statistics for the entire analysis window.

#### Time Over Dynamic Threshold: Entire Time Range

A continuous time period can be used for detecting problems in some situations, for example, a potential disk space exhaustion. Since running out of disk space is catastrophic to a system, the user should be warned if there is a high probability that the disk space will be used up soon. In general, the basic time over threshold rule does not work in this situation because each disk partition has a unique threshold. However, the dynamic rule provides a good indication of how widely spaced usage is likely to swing over a certain time period.

#### Example: Disk partitioning

The time over dynamic threshold algorithm determines when a partition is nearly full by examining recent history of the associated variables over an analysis window of the past few weeks. The algorithm determines how much the partition utilization typically grows and shrinks over that period. It computes the variation seen in a variable over the entire analysis window. For disk partition problems, the variation is typically measured by its standard deviation.

Instead of using a specific time of the day and a specific day of a week, the statistics uses the entire time period in the analysis window. It is because the disk partition is generally not as sensitive to the time and day as other network elements. The dynamic rule is able to dynamically adjust itself to partitions with different characteristics, such as a rapid-changing partition space, a constantly full partition, or a partition with high but stable utilization, e.g. a system partition.

#### Historical Information at System Start-up

When system 10 starts up, LE Engine 100 is initialized and the basic time over threshold rule is used. Historical information is not used until after sufficient of data is collected to support

the rule. Similarly, when a user changes profiles, new elements are initialized without historical analysis.

#### Data Statistics Stored in Database Module

If a rules defined for variables depend on their statistics (e.g. dynamic rules), baseline calculation unit 122 converts the associated normalized data into the appropriate variables and computes the 1<sup>st</sup> and 2<sup>nd</sup> moments of those variables. The computation is performed incrementally instead of by fully recomputing the statistics each time an update is required, and the results are stored in data storage unit 121 for LE Engine 100 to use as parameters of the rules.

There are at least two benefits of using an incremental computation method. One benefit is that it saves disk space. Moments are more compact than normalized data and yet they sufficiently characterize the data, at least from the perspective of what the rules require. Another benefit is related to the computation cost. The computation of the 1<sup>st</sup> and 2<sup>nd</sup> moments over the entire baseline period, i.e. the analysis window, consumes large amounts of time and processing power. The incremental computation uses much less of both and stores intermediate statistical results that can be reused.

#### Incremental Computation of First and Second Moments

In the deviation from normal algorithms, LiveExceptions uses an incremental computation of the mean and standard deviation of a variable over a baseline period. The process works as follows.

The mean,  $\overline{x}$ , and standard deviation,  $\sigma_x$ , of a variable, x(t) over time can be computed for a time period  $(T_0, T_1)$  using the formulas:

$$\bar{x} = \frac{\int_{T_0}^{T_1} x(t) dt}{(T_1 - T_0)}$$

$$\overline{x^2} = \frac{\int_{T_0}^{T_1} x^2(t) dt}{(T_1 - T_0)}$$

$$\sigma_x = \sqrt{\overline{(x^2)} - \overline{(x)^2}}$$

The variables collected are constant over a poll period. This is because many variables are rates, computed by polling the values of a counter at the start and end of a poll period, and computing the difference in the counter divided by the difference in time. This rate is the value of the variable over the entire poll period. While the polls are done at roughly even intervals, the intervals will vary in length slightly, and on occasion, a sample may cover multiple poll periods. For example, if a sample cannot be taken for two polls in a row, the actual sample collected on the successful third poll will cover 3 normal poll periods.

For any given hour, the samples may not (and are unlikely to) align with the start and end of that hour. So let the interval  $(T_0, T_1)$  demarcate the beginning and end of the hour. Also let  $x_1, x_2, ..., x_n$  be the values of the n samples of the variable x(t) taken at times  $t_0 < t_1 < ... < t_n$  that cover the hour. I.e.,

$$t_0 < T_0 \le t_1 \\ t_{n-1} < T_1 \le t_n$$

For all 
$$t$$
 such that  $t_0 < t \le t_n$   
 $x(t) = x_i$ , if  $t_{i-1} < t \le t_i$ 

Then the system computes the following variables for the hour:

$$X_{1} = \int_{T_{0}}^{T_{1}} x(t) dt = x_{1}(t_{1} - T_{0}) + \sum_{i=2}^{n-1} x_{i}(t_{i} - t_{i-1}) + x_{n}(T_{1} - t_{n-1})$$

$$X_{2} = \int_{T_{0}}^{T_{1}} x^{2}(t) dt = x_{1}^{2}(t_{1} - T_{0}) + \sum_{i=2}^{n-1} x_{i}^{2}(t_{i} - t_{i-1}) + x_{n}^{2}(T_{1} - t_{n-1})$$

$$\Delta T = (T_{1} - T_{0})$$

This computation for each hour is done by a background process that computes and stores  $X_1, X_2, \Delta T$  and  $T_1$  to represent the statistics of the variable.

From these records, the mean and standard deviation of x(t) for that hour are then computed as follows:

$$\overline{x} = X_1/\Delta T$$

$$\overline{x^2} = X_2/\Delta T$$

$$\sigma_x = \sqrt{\overline{x^2} - \overline{x}^2}$$

For Deviation from Normal using Deviation from Mean, the normal range is computed based on the mean and standard deviation of the random variable x(t) for the k week baseline period for an hour. The baseline period consists of same hour of the day for the same day of the week for the previous k weeks. For example, a 6-week baseline for the hour from 1500 to 1600 on Wednesday, June 14, consists of 6 hours, all from 1500 to 1600 hours on Wednesday, June 7, Wednesday, May 31, May 24, May 17, May 10, and May 3.

The mean and standard deviation for the k-week baseline are easily computed given the stored hour records as follows:

$$\overline{x} = \sum_{j=1}^{k} X_{j1} / \Delta T_{j}$$

$$\overline{x^{2}} = \sum_{j=1}^{k} X_{j2} / \Delta T_{j}$$

$$\sigma_{x} = \sqrt{\overline{x^{2}} - (\overline{x})^{2}}$$

Where j = 1...k is the record index for the previous k weeks, i.e., record j represents the same hour of the same day of the week from j weeks ago. The records contain the values  $X_{j1}, X_{j2}, \Delta T_j$ , and  $T_j$ .

While each record is computed once by the background process, it is used k times in the following weeks. Note also that the record for the hour consists of just 4 variables, rather than a record per sample (a typical number of sample records in an hour is 12). Hence, a significant reduction in processing power and storage is achieved.

#### Statistics Updating and Retrieval

There are a number of considerations regarding how often the statistics are updated, and how the statistics are retrieved. For one thing, the statistics need to be updated frequently enough so that the relevant rules can adapt to the behavior of the variables and detect changes in those variables promptly. In addition, since the number of statistical results stored in the database module 120 is quite large, it is also important to retrieve them from the data storage efficiently.

#### Hourly Updating

According to one approach, baseline calculation unit 121 computes the hourly statistics for a variable. If the element associated with the variable is polled every 5 minutes, then there will be 12 samples for every hour. These 12 samples are sent to baseline calculation unit 121 for computing statistics and the results of those computations are stored in data storage unit 121.

When an element transitions into a new hour, LE Engine 100 queries database module 120 for the statistics for the variables associated with that element that are uses in a time over dynamic threshold rule. Depending on the type of the dynamic rule, the retrieval scheme differs as described in the following paragraphs.

#### Entire Multi-week Range

The retrieval scheme differs depending on whether the rule is based on an entire multiweek range or the rule is based on a specific hour of the day, and a specific day of the week (e.g. Tuesday at 9 pm) over a multi-week range. With respect to the rule based on an entire multiweek range, LE Engine 100 initially queries the database module 120 over the entire multi-week

range. That is, LE Engine 100 keeps N intermediate statistics for a variable, where "N" is the number of weeks in the entire multi-week range. As the element crosses into the next hour, data collected in the past hour is incorporated to the statistics while data from the hour in the beginning of the range is removed. Therefore, in a steady state, the database module 120 executes two queries for each hour crossed. One query is to add the new statistics for the hour just passed, the other query is to remove the old statistics for the hour at the beginning of the time range.

#### Time of Day and Day of Week

With respect to the rule based on a specific hour of the day and a specific day of the week over a multi-week range, the number of data transfers required is equal to the number of weeks in the multi-week range. When an element crosses into a new hour, LE Engine 100 sends N queries to database module 120 for the statistics of the data collected in the hour and day corresponding to the new hour, where "N" represents the number of weeks in the multi-week range. Therefore, in a steady state, N queries are generated each hour, each of the queries corresponding to statistics computed from the 12 data samples collected in a specific hour of the day and a specific day of a week in the multi-week range.

#### Nightly Updating

An alternative for updating the statistics throughout the day is for baseline calculation unit 122 to do all the required computations at the end of a day. In that case, baseline calculation unit 122 receives a job batch at night, processes all of the data contained in the job, and returns the results to data storage unit 121 afterwards. Then LE Engine 100 retrieves the calculation results when new statistics are needed. This alternative is especially suitable for the rule based on a specific hour of the day and a specific day of the week over a multi-week range, because new statistics are not needed until that hour and day arrives in the next week. This alternative also works for the rule based on an entire multi-week range with a modification that the update frequency being daily, instead of hourly.

#### **Statistics Storage**

The time over dynamic threshold rule requires that the moments be computed and stored for every variable associated with the rule. After baseline calculation unit 122 computes the

moments for every hour, it stores those statistics in data storage unit 121 using a row for every variable of every element being monitored. If there are multiple requests for monitoring the same variable of an element, only one row is generated for every hour. Therefore, the storage scheme is efficient in that it avoids duplications.

#### The Output - The Event Viewer

The output of LE Engine 100 is displayed in a Java-based GUI browser, the Exception Event Viewer. From the event viewer, a user in NOC 135 is able to choose to view an exceptions chart and exception counts for any group or group list, monitor the severity of the exceptions, and examine how the exceptions develop in time.

Referring to Fig 6, an exception event viewer 130 displays an exception event chart 61, an exception event table 62 and an organization frame 63 for communicating information to the network manager. Through exception chart 61, the system shows the total number of active exceptions for all elements in a selected group, or by default displays all the elements exception count. Through exception event table 62, the system lists all current exceptions. And through organization frame 63, the system allows a user to view all group lists, groups and elements and give an overall summary data view. Each of the display components can be easily resized, collapsed or expanded so that a user can focus on a particular display component.

#### **Exception Event Chart**

Through exception event chart 61, a user can view historical exception events and current exceptions events at the same time. LiveExceptions uses event chart 61 to display the total exception counts on the vertical axis for each polling period versus time, which is displayed as polling intervals on the horizontal axis in a scrollable panel. If a user has not selected a group or a group list from organization frame 63, event chart 61 displays all the groups total exception count as a default. If the user selects a group or a group list from organization frame 63, it will display all the current active exceptions for the selected group or group list. Also event chart 61 displays the name of the group selected, otherwise a default name "All" is shown. An exception chart viewing window range is configurable with the granularity of per polling period.

#### **Exception Event Table**

Exception event table 62 presents information in columns and rows. The columns have the following headers: Group list name, group name, element name, type of alert, start time of alert, end time of alert, severity of alert, technology type and key variables that triggered exception for this element from the list. Event table allows a user to select a column header to sort the element list in a scrollable panel. The user has the flexibility in arranging the orders of table columns via selecting the header and dragging and dropping to a user preferred column position, as well as configuring the columns to be viewed or hidden by using the right mouse button menu select options. The cleared, i.e. inactive, exceptions in the event table will be aged out from the event table, if they stayed inactive for a period time longer than a configured valued. Also, if a user switches from one group or group list selection to another, any aged inactive exceptions are removed from the event table.

#### Organization Frame

Organization frame 63 provides mechanism by which a user can quickly see where the exceptions occur and can to drilldown to the exceptions to access further information that is collected by the system. In organization frame 63 each group has a total number of exceptions occurring in that group. The exception event group list frame gives organization view of all the groups and allows a user to expand the group list and to groups and to elements, or to collapse a group of elements into a group and a group list in a scrollable frame. If a user selects a group from organization frame 63, event chart 61 displays the current exception counts in the event chart and the event table displays the appropriate data attributes. The groups or group lists are accessible only to the users who are associated with the groups and group lists.

#### Top 10 Exceptions Window

The Java-based event viewer 130 allows a user to click from an icon to popup a separate dialog window to display the top 10 exceptions with group or group list names and the total exception counts for each group or group list. The display of top 10 exceptions is automatically updated for a configured time period, and the last update time is also displayed. This popup dialog window allows to drilldown to another event viewer by clicking on the group or group list name.

#### Popup Menu Options

In addition, Java-based event viewer 130 allows a user to click on the right mouse button from organization frame 63 to launch a new event viewer such that the user can display and examine another set of elements or groups at the same time.

#### Alarm Detail Report

LiveExceptions can generate for the user an historical report of alarms or exceptions and display that report in event viewer 130. LiveExceptions enables the user to generate an alarm detail report, and then select an alarm or an exception for which the report is to be generated. The displayed trend report is a two-dimensional chart, the x-axis indicating the time, and the y-axis indicating the value of the monitored variable.

An example of an alarm detail report 70 for a particular variable is shown in Fig. 7. Report 70 plots the value of the relevant variable as a function of time (see plot 73). It also displays a sequence of vertical bars 72, each one representing a different 1-hour period of time and each one having a center line 71 marking the mean value of that variable for that time of day over a preceding period of time. The extent of each bar characterizes the observed variation of that variable from its mean over that preceding period of time. In this case, it represents plus and minus one standard deviation from the observed mean value.

In the illustrated example, the rule that is being applied is a time over dynamic threshold rule. More specifically, it is an alarm detail report for the latency associated with a WAN element and it uses the time over dynamic threshold rule. It indicates the measure of latency of the element with respect to time. The varying level of center lines 71 from bar to bar indicates that the rule updates its threshold based on mean value calculations and the varying lengths of the bars indicates that the rule is also updating its normal range base on the standard deviation calculations. When line 73 crosses either the upper or lower edges of a bar element 72, for its period of time, LE Engine 100 accumulates the time during which it is outside of the bar and triggers an alarm if the total accumulated time in the analysis window exceeds the condition window as specified in the rule. With report 70, a user is able to view the historical trend of a variable.

If the rule had been a time over a fixed threshold, the center lines of the bars would all have been at the same level and would not have reflected the observed variation in that variable over some preceding period of time.

#### Reconfiguration

System 10 allows a user to customize the configuration of LE Engine 100 based on how he desires to manage the network. Configuration changes generally include alarm rule additions/deletions, element additions/deletions/modifications, profile additions/deletions/modifications, group or group list additions/deletions/modification, and association additions/deletions, where the association defines a mapping between a profile and a group or a group list.

#### Reconfiguration Process Flow

In general, the basic flow for reconfiguration includes the following steps:

- 1. A user makes some changes in the user interface, or the user imports a file containing the configuration changes.
  - 2. Messages describing the changes are broadcast.
  - 3. LE Engine 100 receives messages indicating changes occurred
- 4. LE Engine 100 updates the state of its internal data structures to reflect the change.

With this process, changes are implemented in LE Engine 100 and related modules are notified. There is no need for re-starting the Engine or re-compiling any files.

One approach to reconfiguration is to make all the necessary updates upon the time LE Engine 100 receiving a reconfiguration message, so that all the changes happen at the same time. However, some times this approach has a poor performance due to inefficiency. An alternative is an amortized approach that allows changes to take place at poll time.

#### Example: Standard Approach for Alarm Rule Changes

When a user updates an alarm rule in a profile, all elements currently using the profile containing the rule need to be made aware of that change. With the first approach mentioned above, LE Engine 100 needs to update the profile associated with the rule, identify a group or a group list associated with the profile, and find all the elements using the profile in the group or

group list. At this time, all the elements relating to the rule are notified that a change in the alarm rule has occurred. With this approach, it is necessary to examine every association between a profile and a group or a group list, and every group or group list to identify the one associated with the profile, and every element in the system. As a result, this approach is quite inefficient.

#### Example: Amortized Approach for Alarm Rule Changes

With the amortized approach, only the profile containing the alarm rule is updated at reconfiguration time. Updating each element is left until poll time. This allows reconfiguration to be much simpler, and updating can be done in effectively constant time, at the expense of an overhead at poll time. More specifically, every time an element is polled, it has to check all the profiles it is associated with to determine if any of the profiles has been updated due to the alarm rule change.

#### System Hardware

Fig. 9 shows a computer system 500 including a workstation display unit 502, an input device (e.g. keyboard) 504, one or more processors 506, and a computer readable medium 508 having a plurality of instructions (e.g. program code) 510 stored thereon. When executed by processors 506, instructions 510 cause processors 506 to implement the above-described functionality of the LiveExceptions system, including the poller module, the configuration module, the LE Engine, the web server and the baseline calculation unit. In addition to storing the program code, the computer readable medium, which might typically be implemented by a combination of disk storage, RAM, and ROM, also implements the data storage that is required in the system.

A number of embodiments of the invention have been described. Nevertheless, it will be understood that various modifications may be made without departing from the spirit and scope of the invention. Accordingly, other embodiments are within the scope of the following claims.

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lahal	Information forms International	10-4-0	Total total	from 24 counts to the bear	10.4-11.5			
1000	cicilian type symmon	landi	Stoll, Jake	Var tu units	laber a	nuis type text	col expression	00
Ethornot	U alignmenterors	Augument Errors	Alignment errors	n	Z Frames	O (Sec	DLL ALGN ERRORS	Ŧ
Fhamet	O availability	Availability	Availability	700	7 8,465	1 (%)	(AVAILABLE TIME 100.0)	11
A	o and railed and	DAGE SHE LIGHTED SIZE	DAID DIRECT BAY		/ loyens	4107(88)	MAD MEDIL BY TESTOLL FRAMES	2
d Ethemet	ObadPalls	Bad Polls	Bad Polls	120	4 Percent	*	(100.0 BAD_PULLS(GOOD_PULLS+MISSED_PULLS+BAD_  PO  1848EBOOTS(100E) TA TIME	
Ethernet	0 bandwidth	Bandwidth Utilization	BW Cill	209	4 Percent	1%	((DLL BYTES'8'100,0)S(speed))	8
Ethernet	0 bandwidthin	Bandwidth Utilization In	BW Uill in	210	4 Percent	%	((TR TOKEN'8'100,0)/s(speed))	
CEthernet	0)bandwidthOut	Bandwidth Utilization Out	BW Uill Out	211	4 Percent	1%	(((DLL BYTES-TR TOKEN)*8*100.0)(\$(speed))	269
Ethemet	olbits	Bits	Bits	437	15 Bils	ol/sec	(OLL BYTES'R O)	5
Ethernet	0 bitsin	Bits in	Bits th	438	15 Bits	0/880	KTR TOKEN'S (1)	3 2
Finemet	0 bitsOut	Bits Out	Bits Out	439	15 Bits	0/sec	((DLL BYTES-TR TOKEN) 8.00	268
Ethernet	0 broadcasts	Broadcasts	Broadcasts	6	2 Frames	0//880	DLL BCASTS	
Ethernet	0 bytes	Bytes	Bytes	2	1 Bytes	Olísec	DIL BYTES	1
Ethemet	) Obytesin	Bytes in	Bytes In	92	1 Bytes	0//380	TR TOKEN	3 6
Ethernet	0 bytesOut	Bytes Out	Bytes Out	20	1 Byles	0 /sec	DOL BYTES,TR TOKEN	3 18
Ethernet	0 collisions	Collisions	Collisions	6	2 Frames	0/800	DI COLLEGONS	30
Ethernet	0 collisionsPct	Collisions %	Collisions %	602	4 Percent	1 1 1 1 1 1 1	1100 O'DELTA TIME DEL COLLISIONE DI EDAMES	40.0
Ethornet	0 defFramesOut	Deferred Frames (out)	Def Frames Out	626	2/Frames		TO SIGNAL LOSS	5
Ethemet	0 discardFrames	Discards	Discards	69	2 Frames	ı	TR BIT STREAMING	3 3
Ethemet	0 discardsin	Discards (n	Discards In	196	2 Framos	П	TR SPAMS CODIED	1
Ethernet	OdiscardshPct	Discards in %	Discards In %	529	4 Percent	1 %	AND O'DELTA TIME TO COAME CONCOUNT COAME	T
Ethernet	0 discardsOut	Discards Out	Discards Out	197	2 Frames	ı	TR BIT STREAMING TO FRAME CODIED	26.2
						ł	100 O'DELTA TIME OR STREAMING.	L
Ethornet	0 discardsOutPct	Discards Out %	Discards Out %	531	4 Percent		TR FRAME COPIED/DIL FRAMES	
Ethernet	0 discardsPct	Discards %	Discards %	604	4 Percent	l	100,0 DELTA TIMETR BIT STREAMING/DIT FRAMES	27.6
Ethernet	0 നേത്	Errors	Errors	2	2 Frames	0 /sec	DLL ERRORS	Ę
Ethemet	0 errorshiPct	Errors in %	Errors in %	530	4 Percent	1 %	100.0 DELTA_TIMETR_FREQUENCY/DUL_FRAMES	271
							100.0*DELTA_TIME*(DLL_ERRORS-	
	0 errorsOutPct	Errors Out %	Errors Out %	532	4 Percent	%	TR_FREQUENCY//DLL_FRAMES	273
Ethernet	0 errorsPct	Errors %	Errors %	603	4 Percent	1%	100.0"DELTA_TIME"DUL_ERRORS/DUL_FRAMES	192
	0 faultsin	Errors In	Errors In	194	O'Rate	O /sec	TR_FREQUENCY	24
Ethernet	0 faultsOut	Errors Out	Errors Out	195	0 Rate	O Isec	DLL_ERRORS-TR_FREQUENCY	392
Ethernet	0 frames	Frames	Frames	1	2 Frames	O /sec	DLL_FRAMES	-
Ethernet	0 Iramesin	Frames In	Frames In	28	2 Frames	O /sec	ITR LOST FRAME	22
Ethernet	0 framesOut	Frames Out	Frames Out	29	2 Frames	0 /sec	DLL_FRAMES-TR_LOST_FRAME	797
							(100.0°GOOD_POLLS/(GOOD_POLLS+MISSED_POLLS+BA	
Ehemet	0 goodPolls	Good Polls	Good Polls	418	4 Percent	7%	ID_POLLS+REBOOTS))*DELTA_TIME	22
Ethernet	Olatency	Latency	Latency		11 Milliseconds	1 (msec)	LATENCY	æ
i						_;	(100.0*MISSED_POLLS(GOOD_POLLS+MISSED_POLLS+B	:
Euremen .	D INTERPRETATION	Mary Degram	Massed Pons	2	4 Percent	2,	AU POLLS+REBUOIS)) THE IME	3
Ethernet	C multicasts	Wy ticento	MATCORIE	4	2 Frames	0 /280	DLL_MCASTS	(7)
Elhernet	C GOODAND CO	Jewyne Bellin	I KINDAN B		2 Frames	0 /890	TR_SET_RECOVERY_MODE	12
Elhemet	( mrthagaille	Personal Ovi	Monument Out	561	2 Frames	oes/0	DLL_MCASTS+DLL_BCASTS-TR_SET_RECOVERY_MODE	267
Ethemet		-	Machapal I	281	TO TOTAL TIENE	(%)	(REACHABLE_TIME-100.0-DELTA_TIME/(TOTAL_TIME-1.0))	92
Hitorio	4	1	Hebrita	121	4 Persent	*	(100.0 REBOOTS (GOOD POLLS+MISSED POLLS+BAD P	6
Ethernet	3		Unapit	711	2 Frames	0 /sec	DIL FRAMES DIL BCASTS-DIL MCASTS	<u> </u>
Ethernet	( العادة بتطفيها بدمنتها فدونها	A Pronous Protestral Paris	Untra Proto Pitts	104	2 Frames	0 /sec	TR LINE	9
Token Ring	1 ab infinas	TH Abut From	TR Abort Errors	6	2 Frames	0/1860	TR ABORT	Ę.
Token Ring	ا 60 يمه من ملعصيل سده	TH A trinese Copied Engre	TR AddrCopy Errs	434	2 Frames	0 /sec	TR_ADDRESS_COPIED	ಣ
Token Ring	1 avadability	Availatility	Avellability	181	10 Total Time	1 (%)	(AVAILABLE_TIME*100.0)	1
Token Ring	1 avgFrameSuze	Average Frame Size	Avg Frame Size	700	7 Bytes	4 (bytes)	DELTA_TIME DIL_BYTES/OLL_FRAMES	310
i				-		;	(100.0*BAD_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD_	1
Token Ring	1 badPolis	Bad Polls	Bad Polls		4 Percent	%:	POLLS+REBOOTS)) DELTA_TIME	S S
T CKen King	าเกลาสดงสนา	Sanowidin Unization	DIA OE	502	4 recent	2 1	((OLL_BY IES 9-100.0/3(speed))	3 5
Token King	1 018	200	Distanti		2 Emmos	Desco	(ULL BYTES 8.0)	2
Token King	1 broadcasts	Broadcasts	Broadcasts	5	/Irrames	Olysec	DILLEGASIS	4

1444								
n Ring	1 hursence	TR Ring Froms	TR Runt Frons	C D CHURS ID	2 Framos	Onits type text	To griber	e ÷
Token Ring	1 bytes	Byles	Bytes	. ~	1 Bytes	0/280	DL BYTES	ľ
Token Ring	1 congestionErrors	TR Congestion Errors	TR Cong Errors	  2	2 Frames	oes/ 0	TR CONGESTION	12
Token Ring	1 errors	Emons	Errors	,	2 Frames	0 /860	DLL ERRORS	2
C Token Ring	1 framoCopledEmons	TR Frame Copled Errors	TR Frame Copied	11	2 Frames	0 /200	TR_FRAME_COPIED	32
C Token Ring	1 frames	Frames	Frames	1	2 Frames	oas/ o	DLL_FRAMES	٦
Token Ring	1 frequencyErrors	TR Frequency Errors	TR Freq Errors	12	2 Frames	0 /860	TR_FREQUENCY	72
Tokon Ring	1 goodPotts	Good Poils	Good Polis	118	4 Percent	\$	(100.01GOOD_POLLS/GOOD_POLLS+MISSED_POLLS+8A D POLLS+REBOOTS))*DELTA_TIME	6
Token Ring	- Paradi	2 7-11 <b>9</b>	C I	,	-		TR_SET_RECOVERY_MODE+TR_SIGNAL_LOSS+TR_BIT_	
	1 Internal From	TR Internal France	TR Internal Erro	2 5	2 Frames	0//860	STREAMING TR CONTENTION STREAMING	2
Yoken Ring	1 latency	Catancy	Latency	208	11 Millseconds	1 (meach	I ATENCY	٦
Token Ring	1 lineErrors	TR Une Errors	TR Line France	14	2 Framos	Capillo C	TOTAL	5 4
Token Ring	1 llcFrames	TRLLC Frames	TR LLC Frames	5	2 Frames	200/0	TP 110 EDAMES	2 2
Token Ring	1 lostFrameErrors	TR Lost Frame Errors	TR Lost Frm Err	19	2 Frames	209/0	TR LOST ERAME	3 5
1000000	!					2000	(100.0*MISSED_POLLS/(3000) POLLS+MISSED_POLLS+B	1
Tokon Ring	1 mesodPolis	Missed Polls	Missed Polls	9	4 Percent	*	AD_POLLS+REBOOTS))*DELTA_TIME	8
Super France	1 mulucasts	Multicasts	Multicasts	4	2 Frames	0/860	DLL MCASTS	3
Tokon Ring	1 reschability	Reachability	Reachability	182	10 Total Time	1(%)	(REACHABLE_TIME:100.0'DELTA_TIME(TOTAL_TIME:1.0))	92
Token Ring	1 reboots	Rebools	Reboots	121	4 Percent	- 2	(100.0*REBOOTS/(GOOD_POLLS+MISSED_POLLS+BAD_P) OLLS+REBOOTS))*DELTA_TIME	8
Token Bing		S CT	TO Soft France		C Cramoo	-	TR_LINE+TR_BURST+TR_INTERNAL+TR_ABORT+TR_ADD RESS_COPIED+TR_CONGESTION+TR_LOST_FRAME+TR_ TOWEN-TD_EDECOLISMS/ATR_EDAME	-
Token Ring	11tokenErrors	TR Token Errors	TR Token Emons	=	2 Frames	08/0	TR TOKEN	3 6
Token Ring	1 unicast	Unicest	Unicast	711	2 Frames	00/00	OLL FRAMES-DIL BCASTS-DIL MCASTS	3
MIBZLAN	2 alignmentErrors	Alignment Errors	Alignment Errors	9	2 Frames	0/880	I'R BURST	1
MIBZLAN	2 availability	Availability	Availability	181	10 Total Timo	1 (%)	(AVAILABLE_TIME*100.0)	11
MIBZLAN	2 avgFrameSize	Average Frame Size	Avg Frame Size	700	7 Bytes	4 (bytes)	DELTA_TIME_TR_TOKENTR_LOST_FRAME	311
MIBZLAN	2 avgFrameSlzetn	Average Frame Size In	Avg Frame Sz In	5	7 Bytes	4 (bytes)	DELTA_TIME DIL_BYTES/DIL_FRAMES	310
MIBZLAN	2 avgFrameStzeOut	Average Frame Size Out	Avg Frame Sz Out	702	7 Bytes	4 (bytes)	DELTA_TIME"(TR_TOKEN.DLL_BYTES)/(TR_LOST_FRAME- DLL_FRAMES)	308
MIBZLAN	2 badPails	Bad Polis	Bad Polts	120	4 Percent	*	(100.0°BAD_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD_ POLLS+REBOOTS)*DELTA_TIME	8
MIBZLAN	2 bandwidh	Bandwidth Utilization	BW Ciii	208	4 Percent	- 28	((TR TOKEN-8-100.0)/\$(speed))	87
MIBZLAN	2 bandwidthin	Bandwith Utilization in	BW Uil tn	210	4 Percent	7%	((OLL_BYTES'8'100.0)/\$(speed))	92
MIBZLAN	2 bandwidthOut	Bandwidth Utilization Out	Bw Uiil Out	211	4 Percent	7%	(((TR_TOKEN-DLL_BYTES)*8*100.0)/3(spaceOut))	8
MIBZLAN	Z bits	200	Sile o	25.5	Single	1	(IK IOKEN'BU)	
MIB2LAN	2 bitsin	erica in	Bits Out	200	15 Bils	0 /580	(ULL BYTES 0.0)	3 8
MIBZLAN	2 bytes	Bytos	Bytes	~		ı	ITR TOKEN	2
MIB2LAN	2 bytestn	Bytes in	Bytes in	8	1 Bytes		DULBYTES	2
MIBZLAN	2/bytesOut	Bytes Out	Bytes Out	20	1 Bytes		(TR TOKEN DIL BYTES)	7
MIB2LAN	2 collisionsOut	Collisions (out)	Collisions Out	627	2 Frames	0 /860	DLI RCV OFF FRAMES	9
MIRZLAN	2 collisions Out Pct	Collisions (out) %	Collisions Out %	720	4 Percent	*	100.0*DELIA_IME*DLL_RCV_OFF_FRAMES(IR_LOS)_F  RAME*DLL_FRAMES)	327
MIB2LAN	2 defFramesOut	(Doforred Frames (out)	Dol Framos Out	626	2 Frames	ļ,	DUL_XMT_OFF_FRAMES	9
MIBZLAN	2 discardedFrames	Discarded Frames	Discarded Frames	25	2 Frames	ı	TR_FRAME_COPIED	25
MIBZLAN	2 discardsin	Discards In	Discards In	96	2 Framos	9	DILLCOLLISIONS	<b>6</b>
MIBSLAN	2 discardsinPct	Discards In %	Discards in %	52B	4 Percent	1	100.0*DELTA TIME DIL COLLISIONS/DIL FRAMES	6
MIB2LAN	2 discardsOut	Discards Out	Discends Cut	à	Z Framos	049/0	THE FRAME COPIED OLL COLLISIONS	2
MIBZLAN	2 discardsOutPct	Discards Out %	Discards Out %	531	4 Percent	*	DLL_COLLISIONS)(TR_LOST_FRAME.OLL_FRAMES)	183
MIBZLAN	2 orrors	Errors	Errors	1	2 Frames	i	TR_FREQUENCY	2
MIBZLAN	2 errorsin	Errors In	Errors th	213	2 Frames	0 /880	OLL ERRORS	<del>2</del>
MIBZLAN	2 errorsinPct	Errors In %	Errora In %	230	4 Percent	36	TO CODELTA TIME DIL ERRORS/OLL FRAMES	2 2
MiB2LAN	2 errorsOut	Errors Out	lerrors out	212	zirrames	0 //86	IN FREQUENCY-DEL ERRORS	1

label	element type symbol		label	short label	var id units	units Id label	units type text	col expression	면 당
	_	į	3		Ě			100.0 DELTA_TIME*TTR_FREQUENCY.	-
MIBZLAN	Zerrors	enorsource	Errors Out &	Errors Out %	332	4 Percent	2	OLL ERRURS)(IR LUSI FRAME-DIL FRAMES)	2 2
MIBZLAN	ZerrorsPc	ğ	Eros %	Errors 76	202	4 recent	g.,	TUD.O'DELIA TIME TR FREQUENCY/TR LOST FRAME	219
MIBZLAN	Zirames		Frames	Frames	- ;	2 Frames	Olysec	TR_LOST_FRAME	2
MIBSLAN	Z mamesin	SID.	rrames in	Frames in	87 6	Zrranes	0/280	DUL FRAMES	7
MIBZLAN	2 framesou	SOUR	Frames Out	Frames Out	528	2 Frames	0/860	(TR_LOST_FRAME-DIL_FRAMES)	82
MIBZLAN	2 apodPolls	offs	Good Polls	Good Pods	118	4 Percent	- <del>1</del>	(100.0-0000_POLLS/(GOOD_POLLS+MISSED_POLLS+BA	£
MIBZLAN	2 latency	<i>k</i>	Latency	Latency	208	11 Milliseconds	1 (msec)	LATENCY	ē
Alibator	. (	-						(100.0*MISSED_POLLS/(GOOD_POLLS+MISSED_POLLS+8	
Missipa	ZinassedPoils	drois	Missed Polis	MISSEC FOILS	2 5	4 Percent	1%	AD POLLS+REBOOTS))*DELTA_TIME	8
MISSLAN	7116	licasi	Norunicast	Nonunicasi	ន្តិ	2 Frames	Ol/sac	DLL BCASTS	4
Missian	Unise mount	ZinonOmeasun	Normingaskin	Nonumerst in	2 5	2 Frames	01/3860	DLL MCASTS	7
MIDSCHA	Zinonor	ICASIONI	Norunicast Out	Nonunicast Out	ng.	2 rrames	Olysec O	(DLL_BCASTS-DLL_MCASTS)	2
MIBZLAN	2 reachability	ability	Reachability	Reachability	182	10 Total Time	1(%)	(REACHABLE TIME 100.0 DELTA TIME/TOTAL TIME 1.0))	29
MIB2LAN	Photaga	g	Behnole	Reboots	5	A Postent	- 2	-MISSED_POL	8
MIBZLAN	2 tunicast		Unicest	Unicast	1	2 Frames	o sec	TR LOST FRANK-DI BCASTS	3 4
MIBZLAN	2 unicastin	illa	Unicast In	Unicast In	712	2 Frames	0/890	DLL FRAMES-DLL MCASTS	345
MIBZLAN	2 Unicasi	ti Cti	Unicest Ord	Uhicasi Out	713	2 Frames	389/	(TR_LOST_FRAME-DIL_FRAMES)-(DIL_BCASTS-	ű
MIB2LAN	2 unlano	2 unknownProtocotPackets	Unknown Protocol Pkts	Unkn Proto Pkts	104	2 Frames	oas/0	ENIT BL	=
Switch Lile Backplane	3 availability	Ailia	Availability	Availability	181	10 Total Time	1(%)	(AVAILABLE TIME-100.0)	1
Switch Life Backplane	3 avoFr	ameSize	Average Frame Size	Avo Frame Size	2007	7.Bytes	4 (bytes)	DELTA TIME TR TOKENTR LOST FRAME	311
Switch Life Backplane	3 backe	3 backplanet tiltzation	Backolane Utilization	Backolane Ulii	540	4 Percent	25	((TR TOKEN'8'100.0)(\$(speedTotal))	2
0. (1.4 t lt. 0d-f-t					ç	1	į	(100.0"BAD_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD_	1
Swich Life Backplane	Singerous	M.S.	DBG FORS	Ded rolls	120	4 recent	8	POLLSTREBOOTS)/ DELIA_TIME	3 8
Switch Life Backpiane	Sirames		rames	Franss	-	Z Frames	O/sec	HALLOSI FRAME	77
Switch Lite Backplane	3 goodP	olis	Good Polls	Good Polls	118	4 Percent	1 %	D POLLS-REBOOTS)) DELTA_TIME	57
Switch Lite Backplane	3 latency	y	Latency	Latency	802	11 Milliseconds	1 (msec)	LATENCY	æ
Switch Lite Backplane	3 missadPolls	dPolls	Missed Polls	Missed Polis	118	4 Percent	<b>3</b> 2	(100.0*MISSED_POLLS/(GOOD_POLLS+MISSED_POLLS+B AD_POLLS+REBOOTS))*DELTA_TIME	88
Switch Lite Barkelane	A propriet	A SERVICE	Reachability	Reachability	182	10 Total Time	30	(REACHABLE TIME 100 C'DELTA TIME (COTAL TIME 10))	92
Switch Life Backplane	3 totalBytes	rtes	Total Bytes	TU Bytes	124	1 Bytes	0/890	TR TOKEN	22
MIB2LAN	4 alignm	4 alignmentErrors	Alignment Errors	Alignment Errora	9	2 Frames	0/890	TR BURST	12
MIBZLAN	4 availability	bility	Availability	Availability	184	10 Total Time	1 (%)	(AVAILABLE_TIME*100.0)	12
MIBZLAN	4 avgFra	avgFrameStze	Average Frame Size	Avg Frame Size	200	7 Bytes	4 (bytes)	DELTA TIME TR TOKENTR LOST FRAME	31
MIBZLAN	4 avgFre	4 avgFrameSizeIn	Average Frame Size In	Avg Frame Sz In	Ę	/ Bytes	4 (bytes)	DELTA TIME OLL BYTES/OLL FRAMES	2
MIBZLAN	4 avgFra	avgFrameSizeOut	Average Frame Size Out	Avg Frame Sz Out	702	7 Bytes	4 (bytes)	DELLALIME (IR_IONEN-DEL_BTIES)(IR_EOSI_FRAME) [DLL_FRAMES]	306
No Icelly	Ahadbolle	ol	Rad Polls	Bed Polls	120	4 Percent	1%	((100.0°BAD_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD_  POLLS+REBOOTS))*DELTA_TIME	85
MIBELAN	4 ibandwidth	ide	Bandwidth Utilization	BW Util	209	4 Percent	1%	((TR_TOKEN'8'100.0)/\$(speedTotal))	79
MIB2LAN	4 bandwidthin	ndthin	Bandwidth Utilization in	BW Uil In	210	4 Percent	1%	\(OLL_BYTES*8*100.0)!\$(speadin)}	<b>3</b> 8
MIBZLAN	4 bandwidthOu	idhOut	Bandwidth Utilization Out	BW Util Out	211	4 Percent	1 1%	(((TR_TOKEN-DLL_BYTES)*8*100.0)/\$(speedOut))	8
MIB2LAN	4 bits		Bits	Bits	437	15 Bits	0/280	(TR_TOKEN'8.0)	9
MIBZLAN	4 bitsln		Bits in	Bits In .	438	15 Bits	Ol/sec	(DLL_BYTES'8.0)	8
MIBZLAN	4 bitsOu	ı	Bits Out	Bits Out	439	15 Bits	0/sec	((TR_TOKEN-DLL_BYTES)*8.0)	99
MIBZLAN	4 bytes		Bytes	Bytes	2	1 Bytes	0/890	TR TOKEN	2
MIB2LAN	4 bytesin		Bytes In	Bytes in	19	1 Bytes	00/0	DIL BYTES	٦;
MIB2LAN	4 bytesout	Zit Zit	Cofficient forth	Collistons Out	229	2 Frames	0/200	DIL RCV OFF FRAMES	2
MIDZEAN			tion morning					100.0 DELTA TIME DIL ROY OFF FRAMESITIR LOST F	
MIBZLAN	4 collisio	*	Collisions (out) %	Collisions Out 76	228	2 Frames	8 6	DII XMT DEE ERAMES	ş Ç
MIBZLAN	A disconding of the second of	99	December Frames (out)	Discarded Frames	25	2 Frames		TR FRAME COPIED	18
MBZLAN	4 Glocar		Uscardeu rigilias	Diagramon ramon	1	201101			

				Ì				-
labol	element type symbol	label	short label			units type text	col_expression	<u>₽</u>
MIBZLAN	4 discardsin	Discards in	Discards in	196	2 Frаmes	0 /880	DIT COLLISIONS	6
MIBZLAN	4 discardsinPct	Discards to %	Discards In %	\$29	4 Percent	1%	100.0 DELTA, TIME DLL, COLLISIONS/DLL, FRAMES	ē
MIBZLAN	4 discardsOut	Discards Out	Discards Out	Ē	2 Frames	0/880	(TR_FRAME_COPIED-DLL_COLLISIONS)	83
Mulbor AN	Logic Colorest IV	S to C observed C	S and a second	Ě	Topologic P.	<del></del>	100.0*DELTA_TIME*(TR_FRAME_COPIED-	Ş
MIBZLAN	4 errors	From	Errors	1	2 Frames	0/890		2 2
MIBZLAN	4 origin	Emors In	Errora th	213	2 Frames	O/sac	DI ERRORS	1
MIBSLAN	4 enorsinPct	Errors In %	Errors in %	530	4 Percent	*	100.0 DELTA TIME DIL ERRORSIDIL FRAMES	Ē
MIBZLAN	4 enorsOut	Errors Out	Errors Out	212	2 Frames	O /sec	TR_FREQUENCY-DLL_ERRORS	8
WHEN AN	-		2	į		-;	100.0 DELTA_TIME*(TR_FREQUENCY.	
MIRST AN	A Green Con	S NO SULL	Grons Cut &	700	d Percent	*	OLL ERRORS)(TR LOST FRAME-DLL FRAMES)	ğ,
MIDDI AM	4 670/5/-C1	Errora 75	Cros %	203	4 Percent	4,7	100.0 DELTA, TIME TR, FREQUENCY/TR, LOST, FRAME	2
MIDS: AN	4 Iramos	Frames	Frames		2 Frames	0/890	TR_LOST_FRAME	22
MIDSI WI	4 framesin	Frames in	Frames in	28	2 Frames	0/890	DLL_FRAMES	
MIBZLAN	4 fremesOut	Frames Out	Frames Out	23	2 Frames	0/690	(TR_LOST_FRAME-DIL_FRAMES)	82
M 10011			-	į			(100.0°GOOD_POLLS/(GOOD_POLLS+MISSED_POLLS+BA	
Mical AN	4 (2000)-0113	Gaod Poils	GOOD POIS		4 Percent	*	D_POLLS+REBGOTS))*DELTA_TIME	i i
	, intenty	Levency	Catency	8	1 I Mailise Collins	(msec)	CALCINCT COLORED POLICE POLICE	١
MIBZLAN	4 missedPolls	Missed Polis	Missed Polls	118	4 Percent	*	(100.0 MISSED_POLLS/(GOOD_POLLS+MISSED_POLLS+B	80
MIBZLAN	4 nonUnicast	Nonunicast	Nonunicast	28	2 Frames	0/sec	OLL BCASTS	7
MIBZLAN	4 nonUnicastln	Nonunicast In	Nonunicasi in	198	2 Frames	0/800	DLL_MCASTS	63
MIBZLAN	4 nonUnicastOut	Nonunicast Out	Nonunicast Out	199	2 Frames	0/880	(DLL_BCASTS-DLL_MCASTS)	94
				- ;				
MIBZCAN	4 reachability	Reachability	Keachability	182	10 Total Time	1 (%)	(REACHABLE TIME 100.0 DELTA TIME/(TOTAL TIME 1.0))	2
MIRSI AN	- V	e production	Rebook	2	4 Perrent	3	(100.0 REBUCTS)(GOOD_POLLS+MISSED_POLLS+SAD_P	6
MIRSH AN	Almicont	I falcant	( Inicasi		2 Frames	0/60	TR LOST EDAME DIT BOASTS	15
MIRZI AN	Auricasiin	Unleast in	Unicest In	742	2 Frames	0/800	DIL FRAMES-DIL MCASTB	315
				L			(TR_LOST_FRAME: DLL_FRAMES)-(DLL_BCASTS-	
MIBZLAN	4 unicastOut		Unicast Out	73	2 Framos	0/000	DLL_MCASTS)	30
MIBZLAN	4 unknownProtocotPack	ets	Unkn Proto Pkts	ğ	2 Frames	0/880	TR_LINE	<del>"</del>
WAN	100 availability		Availability	181	10 Total Time	1 (%)	(AVAILABLE TIME*100.0)	
WAN	100 avgFramoSizo		Avg Frame Size	2	71Bytes	4 (bytes)	DELTA TIME TR TOKENTR LOST FRAME	
WAN	100 avgFrameStzetn	Average Frame Size in	Avg Frame Sz In	502	7 Bytos	4 (bytes)	DELTA TIME DIL BYTES/DIL PRAMES	L
77.77	1 CorlSome Sand Inch	Average Firms Size Quit	Ave Frame Sz Out	702	7 Bytos	4 (bytos)	DELICE FRAMES)	306
100	Company of the control of the contro			L			(100.0*BAD_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD_	
WAN	100 badPolls	Bad Polls	Bad Polls	120	4 Porcent	2	POU.S+REBOOTS)/DELTA_TIME	ŝ
WAN	100 bandwidth	Bandwidth Utilization	an ou	60 20	4 Percent	2 : -	((TR_TOXEN'8'100.0) S(speed lots))	2 8
WAN	100 bandwidthn	Bandwidth Utilization in	BW Util In	2	4 Percent	R .	((OLL BY1ES'8'100'0)/\$(speadinj)	2 8
WAN	100 bandwidthOut	Bandwidth Utilization Out	BW Uill Out	5	4 Fercent	ę.	(((IK IUNEN-ULL BITES) 8 100.0/9(Spagnoul)	ğ
WAN	1000bits	Files	Office In .	25.5	15 1213	00000	IN IONEN BAJ	8
WAN	TO COLOR	in Supplied	1000	939	45 1204	Oran	WTR TOKEN DIL BYTESI'8 DI	99
WAR	100 013	Bidge	Rydes	,	1 Byles	0/800	TR TOKEN	ន
NYA.	400 100	Reports	Pytes In	182	1 Bytes	0/890	DIL BYTES	7
WAN	100 mass 011	Bytes Out	Bytos Out	8	1 Bytes	0/890	(TR_TOKEN-DIL_BYTES)	74
WAN	100 discorded Frames		Discarded Frames	57	2 Frames	0/890	TR FRAME COPIED	25
WAN	100 discardsin		Discards in	196	2 Frames	0 /690	DILLCOLLISIONS	60
WAN	100 discardsinget	Discards in %	Discards In %	529	4 Percent	.e.	100.0 DELTA, TIME DIL COLLISIONS/DIL FRAMES	ᅙ
WAN	100 discardsOut	Discards Out	Discards Out	<u>1</u>	2 Frames	0/890	(TR FRAME COPIED-DIL COLLISIONS)	8
NAME	P.O. Capacing Co.	Special C	Ciecards Out %	534	4 Percent	*	TOO DELTA, TIME (TR. FRAME, COPIED- IDLL COLLISIONSI/(TR. LOST, FRAME-DLL, FRAMES)	8
NAMA NAMA	to libocological	Figure	Emons	-	2 Frames	0/860		54
WAN	100 emorato	Errors In	Errora In	213		0 /880	DLL ERRORS	2
WAN	100 errorsinPct	Errors In %	Errors in %	230	4 Percent	8	100,0'DELTA, TIME'DLI, ERRORS'DLI, FRAMES	192
WAN	100 errorsOut	Errora Out	Errors Out	212	2 Frames	0 /690	TR_FREQUENCY-DIL_ERRORS	g
				•				

label	letement type isymbol		label	short labol	var_id  units_id  abe	Id label	units_type  text	col expression	9 8
								100.0 DELTA_TIME (TR_FREQUENCY.	-
WAN	100 errorsOutPct	Pd	Emors Out %	Emors Out %	283	4 Percent	8 3	OUL ERRORS)/(TR_LOST_FRAME:DLL_FRAMES)	2 3
WAN	100 errorsPct		Errors %	Errors %	2003	4 Percent	200	100,0 DELTA TIME TR FREQUENCY/TR LOST FRAME	2
WAN	100 frames		Frames	Frames	-	2 Frames	0)/890	TR_LOST_FRAME	3
DWAN	100 framesin		Frames In	Frames in	28	2 Frames	0/890	DIL FRAMES	-
WAN	100 framesOt	ıı	Frames Out	Frames Out	29	2 Frames	0/sec	(TR_LOST_FRAME-DIL_FRAMES)	8
en					_;		_;	(100.0'GOOD_POLLS/(GOOD_POLLS+MISSED_POLLS+BA	_{
I MAN	100 good Polis		Good Polls	Good Polis	208	41 Milliesconde	4 (mean)	U_POLLS+REBODIS)/DELIA_TIME	ñ
	100 latency		Latency	Laighty	2	1 INTERIOR	/Apellul I	Manager Doll Bridge Doll Bridge Doll Bar	•
A	100 missadDalle	ele e	Mesod Dolla	Missed Polls	÷	Percent	*	(TOUGH MISSEL) FOLLS/(GOOD FOLLS+MISSEL) FOLLS+6	ď
WAN	100 mars Information		Manufacture of the second	Monthippet	an an	2 Gramos	, O	In achere	3
INCAN	Salah Indian	1991	Alemindood for	Mentalinet In	800	2 Framos	00000	Di Archere	ľ
N. Wal	Mindendincasiin	THIS IN	Normmedst in	I I I I I I I I I I I I I I I I I I I		CIL Idilias	naero.	מוכיים:	1
WAN	100 nonChica	asiOut	Nonunicast Out	Nonunicast Out	188	2 Frames	0/280	(DLL_BCASTS-DLL_MCASTS)	Z
-	100	4	000000000000000000000000000000000000000	Doonhahlih	ţ,	40 Total Time	- 1	VPEACHABLE TIMESTON CODE TA TIMENTOTAL TIMESTON	74
WAN	100/reachability	AL .	Reachability	CARCHADIIIA	75	10104111111		INCACHABLE INC. DELIA IIME(IDIAL IIME IO)	L
200	100		O specific	Dahoota	2	4 Perrant	- <del> </del>	(100.0 KEBOOLS (GOOD FOLLSTWISSED FOLLSTBALL)	
19796	(UD) repoorts		Methods	i bimel	73.7	2 Eramos	O Jean	TO LOST SDAME DI BOARTS	346
NI ON	100 unicest		Unicasi In	I Inicast In	713	2 Frames	Olker	INI ERAMES IN MOSTS	315
NIV A	I OO OI II CASAII		Omeost at	111111111111111111111111111111111111111	!			INTO DOT COALIC OIL COALICOLINI DOACTO	
	G	,	- Control	Shiract Ord	713	2 Frames	U/soc	THE MEASTS!	300
MAN	TOURINGSECT	5	Unicasi Cui	This Date Dite	2 6	2 Compa	300	70 Live	4
WAN	TOO UNKNOWN	UNKNOWNFrotocolPackets	Unknown Protocol PRES	Audiobilia:	ž	40 Total Time	1000	ANALISE TRAFFERDON	1
глато квізу	TOT availability	,	Availability	Availability		0.00	(8/)	DELTA TIME TOWNS	
Common Doloss	A De Caraca Danas De Caraca De Carac	S. S.	Average Frame Size	Avn Frama Siza	902	7 Bytes	4 (bytes)	DELIAL HIME (BITES, INTBITES, OUT PUTACNE (S, INTERACTION) KETS OUT)	
Course Delay	olori Corresponding	Pales	Average Frame Size in	Ava Frame Sz In	ě	7 Bytes	4(bytes)	DELTA TIME DIL BYTES/DIL FRAMES	310
right Neigh	101 avgr jain	NOTION IN	200		-			DELTA TIME TOKEN DIL BYTESYITA LOST FRAME	
Frame Relay	101 avr Frame StreiDut	StreOut	Average Frame Size Out	Avg Frame Sz Out	202	7 Bytes	4 (bytes)	DLL FRAMES)	306
2					_	L		(100.0°BAD_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD_	
Frame Refav	101 badPolls		Bad Polls	Bad Poffs	120	4 Percent	2,5	POLLS+REBOOTS))*DELTA_TIME	8
Frame Relay	101 bandwidth		Bandwidth Utilization	BW UIII	503	4 Percent	25	(((BYTES_IN+BYTES_OUT)*8*100.0)!S(speedTolal))	5
Frame Refav	101 bandwidt	Ę	Bandwidth Utilizetion in	BW Uili In	210	4 Percent	7%	((BYTES_IN*8*100,0)/\$(speadin))	3
Frame Relay	101 bandwidthOut	Şat	Bandwidth Utilization Out	BW Uill Out	211	4 Percent	%	((BYTES_OUT*8*100.0)/\$(speedOut))	<b>S</b>
Frame Relay	101 beenin		BECNIP	BECN In	30	2 Frames	0/880	TR SET RECOVERY MODE	-
Constant Constant						_		100.0 DELTA_TIME TR_SET_RECOVERY_MODE/PACKETS	
Frame Refav	101 hacrdnPct	-	BECN IT %	BECN in %	630	4 Percent	78	N.	277
Grand Defev	104 PerriOut		BECN Out	BECN Out	31	2 Frames	0//80	TR_SIGNAL_LOSS	-2
Gramo Dolan	101 been life	900	BECN Out %	BECN Out %	631	4 Percent	188	100,0-DELTA_TIME*TR_SIGNAL_LOSS/PACKETS_OUT	278
Grama Dalay	404 his		Bits	Blts	437	15 Bils	0 /360	((BYTES_IN+BYTES_OUT)*8.0)	20
Cramo Dolaw	401 Hitelia		Bits in	Bits in	438	15 Bits	0//860	(BYTES_IN*8.0)	<u>8</u>
Crumo Dolav	104 MisOut		Bits Out	Bits Out	439	15 Bits	0/200	(BYTES_OUT*8.0)	9
Come Date	+04 hydes		Byles	Bytes	~	1 Bytes	Ol/sac	BYTES IN BYTES OUT	3
Compa Dolay	101 hydrein		Byles In	Bytes In	18	1 Bytes	0/880	BYTES_IN	R
Frame Belav	101bytesOut		Bytes Out	Bytes Out	20	1 Bytes	0 /sec	BYTES_OUT	3
Company of the Compan						1	- 8	100.0°DELTA_TIME*(TR_SET_RECOVERY_MODE*1K_Bit_  STDEAMMENDACKETS_IN	58
Frame Relay	101 congestioninPct	ntnPct	FECN + BECA IN %	TECN/BECN IN 38	220	* Lanceur		HOD O'DELTA TIME THE SIGNAL LOSSATE CONTENTION	
		į	76 th C 1801a	2 PECNOPEON OLD 25	534	4 Percent	- 50	STREAMINGUPACKETS OUT	196
Frame Relay	101 congestionOutra	MCUIPEI	PECN + OCCA ON B	Off Bates In	9	2 Frames	0/860	TR LOST FRAME	22
Frame Relay	101 deBytestr		DE Byles III	DE Dydes Out	14	2 Frames	0 /sac	TR TOKEN	S
Frame Relay	101 deBylesOut	35	DE BYING OUT	DE Dyles Cut	36	2 Frames	0/890	TR BURST	17
Frame Relay	scorden 101		DE Crops	OF Grames In	8	2 Frames	0/890	TR ADDRESS COPIED	8
Framo Relay	101 de Framesin	F.	DE Frames in	DE Fromos In 96	121	4 Percent	**	100.0 DELTA TIME TR ADDRESS COPIED/PACKETS IN	328
Frame Relay	101 de Framestin Por	simPat	DE FRANS IN %	OF Frames Ord	98	2 Frames	0//800	TR CONGESTION	21
Frame Relay	101 deFramesOut	Sout	DE FRANKS OUR	DE Frames Ord %	722	4 Percent	- 1%	100.0 DELTA_TIME TR_CONGESTION PACKETS_OUT	329
Frame Relay	101 09Frame	Souther	Discoula Cut N	Discards	224	2) Frames	0/860	TR LINE	9
Frame Relay	101 (0.608705)		Company					100.0"DELTA_TIME*TR_LINE([PACKETS_IN*PACKETS_OU	-
1	2-0-1-1-1	3	Olevardo %	Olscards %	604	4 Percent	78	[T)	ž
Frama Relay	10-Kenacarot	ig.	Ulabora in						

Inhal		100						
Crown Delay	element type symbol	lanei	Short label	var to units to	laber	units type text	col expression	8
Frame Reino	101 droppe	Drops		) <sub>x</sub>	Frames	00/600	IR ABORT	9
	O GILOR	Eriora	Engra	1	Zirrames	00/880	DLL ERRORS	2
Frame Relay	101 errorsPct	Errors %	Errors %	603	4 Percent	7	TOWN DELIA TIME DELEBANCIS (PACKETS IN PACKET)	220
Frame Relay	101 fecutin	(FECN In	FECNIA	l.	2 Frames	O /cor	TR RIT STORAWING	
Frame Relay	101 fecutinPct	FECN F %	FECN In %		4 Percent	75.	100 0-DELTA TIME-TR RIT STREAMING PACKETS IN	3,60
Framo Relay	101 fecnOut	FECH Out	FECN Out	33	2 Frames	0/890	TR CONTENTION STREAMING	-
no						1	100.0 DELTA_TIME TR_CONTENTION_STREAMING PACKE	
Frame Relay	101 fecnOutPet	FECN Out %	FECN Out %	628	4 Percent		TS OUT	
right Keley		Frames	Frames	-	2 Frames	O /sec	(PACKETS_IN+PACKETS_OUT)	2
Prama Ketay	101 framesin	Frames In	Framos In	28	2 Framos	0/800	PACKETS_IN	22
Frame Relay	101 framesOut	Frames Out	Frames Out	29	2 Frames		PACKETS_OUT	8
Common Dates							(100.0°GOOD_POLLS/(GOOD_POLLS+MISSED_POLLS+BA	
riane Kelay	101 goodPolls	Good Polls	Good Polls		4 Percent	%	D_POLLS+REBOOTS))*DELTA_TIME	21
гать кеву	101 listency	Latency	Latency	208	11 Milliseconds	1 (msec)	LATENCY	8
From Dolay		1	-				(100.0*MISSED_POLLS/(GOOD_POLLS+MISSED_POLLS+B	
Framo Dolav	Since Section 10	Missed Pais	MISSEO PORS	200	4 Percent	£.	AD POLLS+KEBOOTS)) DELTA TIME	8
Tana Cara	SCOUCHOUGH TO	Mar-De Crops	Main-De Dieps	00	r ramos	0/890	IK INTERNAL	=
Fromo Relay	101 reachability	Reachability	Reschability	182	10 Total Time	1(%)	(REACHABLE TIME 100 0 DELTA TIME/ITOTAL TIME 1.0)	192
							(100.0'REBOOTS/(GOOD_POLLS+MISSED_POLLS+BAD_P	
Frome Relay	101 rebools	Reboots	Reboots	121	4 Percent	1%	OLLS+REBOOTS))*DELTA_TIME	90
MDBS	102 avgFrameSize	Average Frame Size	Avg Frame Size	700	7/Bytes	4 (bytes)	DELTA_TIME'TR_TOKEN/TR_LOST_FRAME	311
MUBS	102 avg-rameSizein	Average Frame Size in	Avg Frame Sz in	5	/ Bytes	4 (bytes)	DELTA TIME DIL BYTES/DIL FRAMES	9
000		A. C		400			DELTA_TIME*(TR_TOKEN-DLL_BYTES)/(TR_LOST_FRAME-	
WOR	102 hits	Bits	Rile Rile		15 Bite	d trong	(TO TOKENED)	200
MDBS	102 blocks Cornected From	Blocks Comeded France	Bike Consel Fire	١	2) Framon	Display of	DACKETE IN	5
MDBS		Blocks Transmitted	Rvs Fiks Tran	297	2 Frames	) (car	PACKETS OUT	, g
ВВОМ	102 blocksUncorrectable	Blocks Uncorrectable	Blks UnCorrect	294	2 Frames	0/890	TR LLC FRAMES	36
MDBS		Blocks Wrong Color Code	Biks Wma CCode	296	2 Frames	0/890	BYTES IN	3
MDBS	bytes	Bytes	Bytes	2	Bytes	0/280	TR_TOKEN	23
MDBS	102 bytesRecieved	Bytes Received	Bytes Received	22	l Bytes	O /sec	DLL_FRAMES	۲
MDBS	102 bytesTransmitted	Bytes Transmitted	Bytes Tx	23	Bytes	0//sec	DLL_BYTES	7
MDBS	102 discardsin	Discards in	Discards in	196	2 Frames	0 //sec	DLL_COLLISIONS	8
MDBS	102 errors	Enote	Errors	7	Frames	0 /sec	DLL_ERRORS	ĝ
MDBS	102 frames	Frames	Frames		Frames	0 /sec	TR_LOST_FRAME	22
MDBS	102/noRFChannelsTime	No RF Channels Time	No RF Charl Time	292	10 Total Time	( <del>%</del> )	TR_INTERIVAL	2
MDBS	102 octots Transmitted	Octobs Transmilled	Rvs Oct Road	1		0/890	BYTES OUT	8
MDBS		Open RF Channels Time	Open RF Chan Tim		10 Total Time	1(%)	TR_BURST	=
MDBS	102 successfulPlannedHops	-	Suc Plan Hop	291	O Rate	0/sec	OLL XMT OFF FRAMES	
MDBS	successfulUmplanned	-	Suc Unpin Hop	290	0 Rate	0/880	DLL RCV OFF FRAMES	9
MUSS Marcel Common Delan-	102 unknownProtocotPackets	Unknown Protocol PRIS	Onich Proto Pres	707	retained	0/200	IN LINE	=
Visual Frame Relay	103 avauaniiry	Avariability	Availability	, ,	TI OTHE FIFTH	(92)	HAVAILABLE IIME 100.0)	
Visual Frame Refav	103 ave Frame Size	Average Frame Size	Avo Frame Size	200	Bytes	4 (bytes)	KETS OUT	302
Visual Frame Retay	103 avaFrameSizeIn	Average Frame Size in	Ava Framo Sz th.	701	7 Bytos	4 (byles)	DELTA TIME'BYTES IN/PACKETS IN	307
Visual Framo Relay	103 avaFrameSizeOut	Average Frame Size Out	Avg Frame Sz Out	702	) Bytes	4 (bytes)	DELTA TIME BYTES OUT PACKETS OUT	308
				_			(100.0°BAD_POLLS/(GOOD_POLLS+WISSED_POLLS+BAD_	
Visual Framo Rolay	103 badPotts	Bad Polfs	Bad Polis	120	Percent	1 %	POLLS+REBOOTS)) DELTA TIME	8
Visual Framo Relay	103 bandwidth	Bandwidth Utilization	BW CEI	508	Percent	%	(((BYTES_IN+BYTES_OUT)*8*100.0)/\$(epaodTotal))	<u> </u>
Visual Frame Refey	103 bandwidthin	Bendwich Unitzation in	aw cill in	212	Fercent	8	((BT IES IN 8 100.0)) (Speedin))	3 8
Visual Framo Kolay	103 bandwidthOut	Bandwidth Utilization Cut	BW CAIL CUT	721	Forconi	8	(BT1ES UUT 8 100.0/13(ppeadutt))	2 5
Visual Framo Relay	103 becnin	BECNIA	BECKIN	30	Frames	O VBBC	TR SEL RECOVERT MODE	7 5
Visual Frame Relay	103 BBCHOUT	פובכא כמו	מברוו סמ		Chiemes	0/100	WOOTES MADVICE OF THE OF	3 5
Visual Framo Holay	103 0103	Bite in	Pile fo		Bits	l	(BYTES IN B.D)	184
Visual Frame Relay	103 bitsOut	Bils Out	Bits Out	439	15 Bits	L	(BYTES_OUT'8.0)	167
Visual Frame Relay	103 bytes	Bytes	Bytes		1 Bytes	1	BYTES_IN+BYTES_OUT	86
Tuesday to the same of the sam	AMERICA.	- Land				l		

				ŀ				[:
label	element_type symbol	label	short label	var id units	diabel	units type text	col expression	6
Visual Frame Relay	103 bytesin	Bytes In		2 2	1 Bytes	Des/In	BYTES IN	9 6
Visual Frame Relay	103 bytesOut	Bytes Out	Bytes Out	2	1 Bytes	0 /890	BYIES OUT	3
Mensi Framo Rolan	103 congestion and	% el NCHH + NCHH	FECN/BECN In %	533	4 Percent	- *	100.0 DELTA_TIME (TR_SET_RECOVERY_MODE+TR_BIL_) STREAMING VPACKETS IN	- 65
	in miles and an area						100.0"DELTA_TIME"(TR_SIGNAL_LOSS+TR_CONTENTION	
Visual Frame Relay	103 congestionOutPct	FECN + BECN Out %	FECN/BECN Out %	534	4 Percent	%	STREAMING/PACKETS_OUT	98
	103 deBytesin	DE Bytes In	DE Bytes in	\$	Z rrames	0/sec	IR LOST FRAME	3(3
Visual Frame Relay	103 deBytesOut	DE Bytes Out	DE Bytes Out	41	2 Frames	0/860	TR_TOKEN	S)
Visual Frame Relay	103 deFramestn	DE Framos In	DE Frames In	<b>R</b>	ZiFrames	Ol/sec	I'R, ADDRESS, COPIED	₹[
Visual Frame Relay	103 deFramesOut	DE Frames Out	DE Frames Out	39	2 Frames	0 /sec	TR CONGESTION	7
Visual Frame Relay	103 errors	Errors	EMORE	200	2 Emines	Design of	ULL EKKOKS	2(3
Visual Frame Kelay	insliecum	I ELN IN	TECN III	35	2 rrames	Olysec	IN DIS USERAMING	1
Visual Frame Relay	103 fection	FECN Out	FECNO	200	Zirrames	O//sec	IR CONTENTION STREAMING	2
Visual Frame Relay	103 frameDeliveryRatio	Frame Delivery Ratio	Frame Del Ratio	229	4 Percent	- 1%	(100.0°DLL_BCASTS)	88
Visual Frame Relay	103 frames	Frames	Frames	-	2 Frames	0/360	(PACKETS_IN+PACKETS_OUT)	2
Visual Framo Relay	103 framesin	Frames in	Frames in	2 2	Z Frames	0/880	PACKETS IN	7 8
Visual Frame Kelay	103 framesOut	Frames Out	rames Out	82	2 rames	O /Sec	MACKETS OUT	3
Visual Frame Relay	103 amppoils	Gond Polls	Good Polts	118	4 Percent	- *	(100.0 GOOD_POLLS/(GOOD_POLLS+MISSED_POLLS+BA	C
Visual Frame Relay	103 latency	Round Trip Delay	Round Trip Delay	260	4 Percent	7%	LATENCY	8
Visual Frame Refay	103 missed Polis	Missed Polis	Missed Polls	118	4 Percent	1%	(100.0°MISSED_POLLS/(GOOD_POLLS+MISSED_POLLS+B AD_POLLS+REBOOTS))*DELTA_TIME	58
Visual Frame Relay	103 reachability	Reachability	Reachability	182	10 Total Time	1 (%)	(REACHABLE TIME 100.0 DELTA TIME (1.0))	192
		-located	Gabonite	5	A Dormant	- 25	(100.0 REBOOTS/(GOOD POLLS+MISSED_POLLS+BAD_POLLS+BAD_POLLS+BAD_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+MISSED_POLLS+MISSED_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+MISSED_POLLS+MISSED_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+MISSED_POLLS+MISSED_POLLS+MISSED_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_	8
Visual Figure Netay	4001-3	Dough Advisor   Cont. 1	Buret Advisor 4	250	4 Percent	2 2	(400 A'OL DOV ORE EDAMES)	2
Visual Frame Neary	11S Indipolation	Densit Author Love 1	Burel Advicor 2	555	A Darrow!	78	MAN O'CH KAT DEE EDAMES	Š
Visual France Relay	103 Visualbursiz	Direct Address Cavel 2	Brite Adden 3	250	4 Percent	2 2	MANUAL TRANSITOR	202
Visual Frame Relay	103 Marghan	Biret Advisor Level 4	Burst Advisor 4	557	4 Percent	- %	(100.0°DLL ENET FRAMES)	207
Visual Frame Relay	103 VisualBurst5	Burst Advisor Level 5	Burst Advisor 5	558	4 Percent	1%	(100.0°01L COLLISIONS)	208
ATM Port	105 aal5Pdus	AAL5 PDUs	AALS PDUs	432	8 Cells	0/sec	DLI_ALGN_ERRORS+TR_SET_RECOVERY_MODE	156
ATM Port	105 aal 5 Pdus Discarded	Discarded AAL5 PDUs	AALSPDUs Dsc	433	8 Cells	0//sec	TR_SIGNAL_LOSS+TR_BIT_STREAMING	5
ATM Port	105 aal5PdusDiscardedIn	Discarded AALS PDUs in	AALSPDUs Dec In	311	8 Cells	0 /880	TR_SIGNAL_LOSS	2
	20 A	% of at IOO R 100 between	AAI SPOIT Dec In %	818	4 Percent	1%	100.0*DELTA_TIME*TR_SIGNAL_LOSS/DIL_ALGN_ERROR. S	226
ATM Por	Daring and an analysis and an	Caramad AAI & DOI to Out	AAI SPOUR Dec Out	312	RCells	O/Sec	TR BIT STREAMING	7
Alm Port	TO CONTROL TO THE CO.	Т.	AAI SPOIT Dee Out%	618	4 Parrent	*	100.0 DELTA_TIME TR_BIT_STREAMING/TR_SET_RECOVERY MODE	227
AIM FOR	Chinonal saggrant Lorage (co.	Т					100.0 DELTA_TIME (TR_SIGNAL_LOSS+TR_BIT_STREAM)	
ATM Port	105 aal5PdusDiscardedPct	Discarded AAL5 PDUs %	AALSPDU Dsc %	614	4 Percent	1%	NG)(IDLL_ALGN_ERRORS+TR_SET_RECOVERY_MODE)	ង
ATM Port	105 aal5PdusIn	AAL5 PDUs In	AALS PDUs In	600	8 Cells	0//360	DLL ALGN ERRORS	= \$
ATM Port	105 aai5PdusOut	AALS PDUs Out	AALS POUS Out	310	8 Celis	0/280	THE SELL MECUVERY WOULD	-
AIM Port	TOS BVBIIBDIRIY	Availability	Ovaciationity	2	200	,	(100.0'BAD POLLS/IGOOD POLLS+MISSED_POLLS+BAD_	
ATM Port	105 badPolls	Bad Polls	Bad Polls	120	4 Percent	1 %	POLLS+REBOOTS)) DELTA_TIME	8
ATM Port	105 bandwidth	Bandwidth Utilization	BW Citi	209	4 Percent	1%	((TR_TOKEN'8"100.0)/\$(speedTotal))	۴
ATM Port	105 bandwidthin	Bandwidth Utilization In	BW Util In	210	4 Percent	2%	((DLL_BYTES*8*100.0)/\$(speedln))	8
ATM Port	105 bandwidthOut	Bandwidth Utilization Out	BW Util Out	211	4 Percent	7%	(((TR_TOKEN-DIL_BYTES)'8"100.0)/\$(speedOut))	8
ATM Port	105 bits	Bits	Bits	437	15 Bits	0/890	(TR TOKEN'8.0)	9
ATM Part	105 bitsin	Bits In	Bits in	438	15 Bits	0/880	(01L_BYTES'8.0)	200
ATM Port	105 bitsOut	Bits Out	Bits Out	439	15 Bits	0//0	((IK_IOKEN-ULL BY ICS) 8.0)	8
ATM Port	105 bytes	Вую	Bytes	7 5	1 Bytes	01/280	IK TOKEN	3
ATM Port	105 bytesin	Bytes in	Bytes in	2 2	1 Bytes	n/sec	TO TOKEN DI DOTECT	7
ATM Port	105 bytesOut	Bytes Out	Eyres Out	07 70	1 Bytes	398/0	TO LOST SDAME	3
ATM Port	105 cells	Cells	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5 00	Orate	0 /605	DII FRAMES	-
ATM Port	105 cellsin	Cells a	2000	200	OPate	O/kec	ITR LOST FRAME-DIL FRAMESI	8
ATM Port	105 callsOut	Cells Out	Sells Coll	423	Celle	O /eac	TR LOST FRAME, TR BIRST	13
ATM Port	105jcpuceus	ICLPU CEIR	CLTU volis	l And	2000			

100	element trees establish	Inhat	short fahai	land of limits by labor	4 Inhat	tenife from fave	) avaraged	7
ATM Port	105 dp0Cellstn	CLP0 Calls In	CLP0 Calls in	424	8 Cells	0 /sec	R_INTERNAL	135
							(TR_LOST_FRAME-DIL_FRAMES)-(TR_BURST-	Γ
ATM Port	105 cp0ColleOut	CLP0 Cells Out	CLP0 Cetts Out	425	8 Cells	0 /800	TR INTERNAL)	2
A ATM Port	105 cp0Discards	CLP0 Discards	CLP0 Discards		8 Cells	0 /38c	TR_FRAME_COPIED-TR_CONTENTION_STREAMING	131
ATM Port	105 ctp0DiscardsIn	CLP0 Discards In	CLP0 Discards in	421	8 Cells	0/sec	DLI_COLLISIONS-TR_LINE	3
<b>be</b>	105 do00[scardaInPet	CLP0 Discards to %	CLP0 Dads in %	621	4 Percent	- *	100.0°DELTA_TIME*(DLL_COLLISIONS- TR_LINE;//DLL_FRAMES-TR_DYTERNAL)	232
nd	104 chanliscarde Out	C Po Recents Out	C PO Discourse On	422	S Colls	(C)	(TR_FRAME_COPIED-TR_CONTENTION_STREAMING).	133
ix	100000000000000000000000000000000000000	מבו כ מומספותים כתו	200000000000000000000000000000000000000			2007	100.0 DELTA TIME ((TR FRAME COPIED.	3
A.	105 chroDiscardsOuPer	% In O Spreads Of D	C. Po Dsods Out %	822	4 Percent	*	TR_CONTENTION_STREAMING)-[DL_COLLISIONS- TR_UNE))/(TR_LOST_FRAME-TR_BURST)-[DL_FRAMES- TR_INTERNAL)	233
							100.0 DELTA, TIME (TR. FRAME, COPIED. TR. CONTENTION, STREAMING)/(TR. LOST, FRAME.	
ATM Part	105 clp0DiscardsPct	CLP0 Discards %	CLP0 Doods %	620	4 Percent	1 %	TR_BURST)	231
ATM Port	105 clp1Cells	CLP1 Cells	CLP1 Cells	411	8 Cells	0 /890	TR_BURST	-
ATM Por	105 clp1 Cellsin	CLP1 Cells In	C.P. Cells in	412	8 Cells	0 /200	TR INTERNAL	2
ATM Port	105 dp1 Censing	CLY1 COURT IN SE	CEPT Cells in 7	413	A rercent	204	TO DIDET TO INTERNAL	2 5
	1000	200 200	2000				100.0"(TR_BURST-TR_INTERNAL)/(TR_LOST_FRAME.	
ATM Port	105 dp1CellsOutPd	CLP1 Cells Out %	CLP1 Cells Out %	718	4 Percent	72	OLL FRAMES)	320
ATM Port	105 dp1CellsPd	CLP1 Cells %	CLP1 Cells %	716	4 Percent	2	100.0"TR_BURST/TR_LOST_FRAME	318
ATM Port	105 ctp1Discards	CLP1 Discards	CLP1 DIsc		8 Cells	0 /890	TR_CONTENTION_STREAMING	-
ATM Part	105 dp10iscardsIn	CLP1 Discards In	CLP1 Disc In	١	8 Ceffs	0/860	TR LINE	9
ATM Port	105 cp 10iscardsInPct	CLP1 Discards in %	CLP1 Dads in %	618	4 Percent	2	TOO OPELIA TIMETIK LINE/IK INTERNAL	\$
AIM FOR	105 cp10/scardsOut	CLP1 LISCARIS OUT	CLP1 Disc Out	212	o cells	O /SBC	140 COLUENT TIMESTE CONTENTION STORAMING.	3
ATM Port	105 cb1DiscardsOutPct	CLP1 Discards Out %	CLP1 Oscals Out %	619	4 Percent	%	TR_LINE]/(TR_BURST-TR_INTERNAL)	230
		2 2 2 2	CI De Donde &	4.50	ABorrent	7	100.0-DELTA_TIME-TR_CONTENTION_STREAMING/TR_BU	228
ATM Port	105 discarda	Discards	Discards	485	8 Cells	0/3ec	TR FRAME COPIED	22
ATM Port	105 discardsin	Discards in	Discards th	491	8 Cells	0 /360	DIL COLLISIONS	8
ATM Port	105 discards in Pet	Discards in %	Discards th %	529	4 Percent	*	100.0 DELTA_TIME DLL_COLLISIONS/DLL_FRAMES	181
ATM Port	105 discardsOut	Discards Out	Discards Out	492	8 Cells	0 /sec	(TR_FRAME_COPIED-DLL_COLLISIONS)	83
ATM Port	105 discardsOutPct	Chacards Out %	Discards Out %	531	4 Percent	%	100.0'DELTA_TIME'(TR_FRAME_COPIED- DIL_COLUSIONS)(TR_LOST_FRAME,DL_FRAMES)	183
ATM Port	105 discarda Pet	% epreasidi	Discards %	804	4 Percent	*	100.0 DELTA_TIMETTR_FRAME_COPIED/TR_LOST_FRAME	262
ATM Parl	105 errorad Seconds	Errorad Seconds	Errored Seconds	299	4 Percent	1 %	DLL_XMT_OFF_FRAMES*100.0	153
ATM Port	105 errors	Errora	Етоп	496	8 Cells	0 /sec	TR_FREGUENCY	ž
ATM Port	105 errorsIn	Errors in	Errors In	493	8 Cells	0/860	DLL ERRORS	2 3
ATM Port	105 errorsInPct	Errors In %	Errors in %	530	4 Percent	*	TOUR DELTA TIME DIL ENFORMUL FRAMES	2 2
ATM Pon	105 emorsout	Errors Cut	Errors Out %	532	4 Percent	38	100.0 DELTA TIME (TREQUENCY- DIA PROPENTIRE (TREMES)	ş
	5 1000000000000000000000000000000000000					 	(100.0'GOOD_POLLS/(GOOD_POLLS+MISSED_POLLS+BA	1
ATM Part	105 goodPolls	Good Polls	Good Polis	BUC	4 Percent	g L	I ATENICA	3
Aim Fon	Topingancy	Latinucy	Colonia				(100.0*MISSED_POLLS/(GOOD_POLLS+MISSED_POLLS+B	
ATM Port	105 missadPolis	Missed Polfs	Missed Polls	١	4 Percent	1%	AD_POLLS+REBOOTS))*DELTA_TIME	8
ATM Port	105 policyViolations	Policy Violations	Policy Vitns	417	8 Cells	0//sec	TR LLC FRAMES	3 5
ATM Port	105/poricyViolationsin	Policy Violations in	Clary Vins in		A Portoni	00/200	100 0 DELTA TIME PACKETS INCH PRAMES	235
ATM Port	105/poileyviolationPet	Policy Violations III 78	Policy Vitus Out	419	8 Cells	0//sec	TR LLC FRAMES-PACKETS IN	138
Alm Par	too points and con	TO STOREGIA COMO	in Committee				100.0 DELTA_TIME TRALLC_FRAMES	35.
ATM Port	105 pallcy/riolationsOutPct	Policy Violations Out %	Pley Vilns Out %	625	4 Percent	2 3	AND ASSET TO THE TIEST TO THE TO THE TO THE TO THE TENTO THE TENTO TO THE TENTO TO THE TENTO TO THE TENTO TO THE TENTO THE TENTO THE TENTO TO THE TENTO TO THE TENTO TO THE TENTO TO THE TENTO THE TENT	3 2
ATM Por	105 paicyViolayonsPc	(Forcy Viginations 78	I'll vius a	678	4 reicein	% 11	Deco Decreta	

		17-7-1			imits to linke	india hose leave	102000000000000000000000000000000000000	
element type s	symbol	labei	Single lands		Dam Di entre	mino-yra iavi	apprendy a long	
105 10	105 reachability	Reachability	Reachability	182	10 Total Time	1 (%)	(REACHABLE_TIME*100.0*DELTA_TIME/(TOTAL_TIME*1.0))	٤
496	-	Deboote	Rahnnie	121	4 Percent	*	(100.07KEBOOTS)(GOOD_FOLLS+MISSED_FOLLS+BAD_F)	9
100	renduis	Netrous Secretary Communication	Sav Er Sornnde	Ę	4 Parcent	2 2	DI TRANSITS 400 0	155
100	everi creadalecturals	Develop England	I Ingvall Seconds	Ş	AParent	2 2	OL ENET EDANES-409.0	154
1000	Davallatrecentus	A ALE DIVIL	AAI 5 DOI 16	432	A Colle	200/00	DI WOASTCADII COILISIONS	K
200	406 policolarino	Dismeraled AA) & Dill is	AAI SPINIs Dec	1	A Cale	200/0	C. EDANGE-DI SYTES	246
200	40C pate Odisolisce ded	Disconded AALE DOLLS In	A A I SON to Dec In	34	al Selection	200/0	D. COANGO	
100	Paris Constitution of the state	DISCOURT OF THE PROPERTY OF TH	A A CO	,	Since of the same	Clear	DEL TRAMES	-
100	alaruasolisca deginra	Discarded AALS FLOS III A	A A LEDOLO USCIII A	2 6	4 rement	e i	TOUR DELIA TIME DUL TRANCSIOLL MUASIS	3
900	ing and runsons cardeout	DISCARGED AND POOR OUT	A ST STATE DES COUL	210	Since of	01/300	חרר פיודט	
	Hais-rouscardedour-ca	Discarded AALS PUUS CUI %	WALST-UU USC CUITS		4 Percent	% T	TUO.O.DELIA TIME DIL BYTES/DIL COLLISIONS	ß
100	to Charles Carlot Day	9 cl 100 A 144 L character	W 44 CDD1 D20 W	ì	10000		100.0 DELTA_TIME*(DLL_FRAMES+DLL_BYTES)(DLL_MC	į
20,	TOO BRIDE OUSLINGER CREEKE	Uscarded AALS PUOS 76	WILDING DSC 78	0		<b>R</b> .	ASISTOLL COLLISIONS)	9,
E 001	Toplaals-rousin	AALS PUUB III	AALD FUUS III	200	800	0/960	DIL MCASTS	
108.3	alsPdusOut	AALS PDUS OUT	AALS PIDUS OUT	פוסנפ	8 Cells	oas/0	DIL COLLISIONS	
1068	105 allocated Channels	Allocated Channels	Allocated Chris		19 520	4	(IR BURST+TR CONGESTION)	ñ
105	flocatedChannelsIn	Alfocated Channels in	Alloc Chan In	8	19 5 20	4	TR BURST	7
108 <sub>l</sub> a	llocatedChannelsOut	Allocated Channels Out	Alloc Chen Out	202	19/Size	4	TR_CONGESTION	ñ
1069	106 availability	Availability	Availability	Ē	10 Total Time	1(%)	(AVAILABLE_TIME:100.0)	F
	:	;		-			(100.0'BAD_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD.	-
108b	badPolis	Bad Polls	Bad Polls	2	4 Percent	26	POLLS+REBOOTS)) DELTA_TIME	ő
109b	108 bandwidth	Bandwidth Ullitzalion	BW UIII	8	4 Percent	78	(((BYTES_IN+BYTES_OUT)*8*100.0)/\$(speedTotal))	9
106b	andwidthin	Bandwidth Utilization In	BW Util to	210	4 Percent	%	((BYTES_IN'8'100.0)/\$(speedfn))	ត
108	bandwidthOut	Bandwidth Utilization Out	BW Util Out	211	4 Percent	1%	((BYTES_OUT*8*100.0)/\$(speedOut))	ä
106lblts	##	Bits	Bits	437	15 Bits	0/380	((BYTES_IN+BYTES_OUT)*8.0)	162
199	didn	Bits in	Bits in	438	15 Bits	0/280	(BYTES_IN'8,0)	164
108	106 bits Out	Bits Out	Bits Out	439	15 Bits	0//880	(BYTES OUT'8.0)	167
108,		BVAS	Bytes	2	1 Bytes	0/880	BYTES IN+BYTES OUT	88
106 hydesir		Bytes In	Bytes In	90	1 Bytes	0/880	BYTES IN	28
198	- FIE	BVes Out	Bytes Out	22	1 Bytes	0//sec	BYTES OUT	8
90,	cells	Cells	Cells	184	0 Rate	0/sac	PACKETS IN+PACKETS OUT	20
1080	cellein	Colls In	Cells In	200	0 Rate	0//960	PACKETS_IN	27
4080	Collection	Cotts Out	Cells Out	200	0 Rate	D/sec	PACKETS OUT	25
200	Selection of the select	C CO College	C PO Calls	\$	BiCalls	10/200	PACKETS IN+PACKETS OUTI-TR INTERNAL	140
9001		ST-12 Calls	C Do Colle fa	767	RCalle	D/car	PACKETS IN TR ABORT	141
106		CLPU Calls In	D Po Calle Out	20		O //mc	PACKETS OUT TR INTERNAL-TR ABORT)	142
1060	cipacelisturi	CLYS CHIS CALL	2000000	1	2	200	THE SET RECOVERY MONETER SIGNAL LOSSI-	
190	(Ashon) ierande	CI Po Discards	CLP0 Discards	420	8 Cells	0 /280	TR BIT STREAMING	4
9	pools and a			-			TR_SET_RECOVERY_MODE-	
106,0	106 ctp0Discardstn	CLP0 Discards in	CLP0 Discards in	421	Scalls	0/200	TR CONTENTION STREAMING	<u>i</u>
		8 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	A popular	. 2	4 Percent	<u>%</u>	100.0 DELTA_TIME"(TR_SET_RECOVERT_MODE- TR_CONTENTION_STREAMING)((PACKETS_IN- TR_ABORT)	257
9	Tue capubliscardsining	ברבת השפשותם ווו ש					TR_SIGNAL_LOSS.(TR_BIT_STREAMING-	377
106	106 ctp0DiscardsOut	CLP0 Discards Out	CLP0 Discards Ou	422	8 Cells	298/0	TR CONTENTION STREAMING)	
							IND. OBELIA, TIME (TA, SIGNAL, LOCAL) (TR, BIT, STREAMING) TR CONTENTION STREAMING) WIPACKETS, OUT-	
	and Cabanasian and and	Cr Po Discours Ord %	CLP0 Dscds Out %	622	4 Percent	- %	(TR_INTERNAL-TR_ABORT))	258
900	production of the second of th			-			100.010ELTA_TIME*((TR_SET_RECOVERY_MODE+TR_SIG NAT_10SSL	
			200	8	0	9	TR BIT STREAMING) ((PACKETS_IN+PACKETS_OUT)-TP INTERNAL)	256
106 0		CLP0 Discards %	CLFV USGOS 78		# reicen	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	TO INTERNAL	٣
106 C		CLP1 Celts	CLP1 Cells	Ę.	Sicella	Day of	TO ABOUT	٤
106	p1CellsIn	CLP1 Cells in	CLP1 Cells in	7		Dag.	ASSOCIATION OF THE PROPERTY IN	3
106 cl		CLP1 Cells in %	C P1 Cells in %	ŧ	4 Percent	g - 0	TO INTERNAL TR ABORT	138
106 0		CLP1 Cells Out	CLY1 Ceus Out	2 5	Silent A	7	SON DOTTO INTEGNAL TO ABORT UPACKETS OUT	323
, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		C P1 Cells Out &		20	#ILECOIN		I TOWN TIME IN THE PROPERTY OF THE PARTY OF	١

Librar	element here britakel	lahal	Short tabal	and leaffer	unite 14 linhal	limits home loans	ſ	
ATM Path	760	CLP1 Cells %	30	200	4 Percent	701	100 O'TR INTERNAL (PACKETS IN+PACKETS OUT)	33
ATM Path	106 dp1Discards	CLP1 Discards	CLP1 Disc	6	8 Cells	0/860	TR BIT STREAMING	2
ATM Path	106 dp 1 Discardsin	CLP1 Discards in	CLP1 Disc In	898	8 Calls	O/kec	TR CONTENTION STREAMING	12
A ATM Path	106 dp1DiscardsInPct	CLP1 Discards in %	CLP1 Discus in %	618	4 Percent	11%	100.0 DELTA TIME TR LINE/TR INTERNAL	228
D ATM Path	108 dp1DiscardsOut	CLP1 Discards Out	CLP1 Disc Out	410	8 Cells	O /sec	TR_BIT_STREAMING-TR_CONTENTION_STREAMING	137
ad ATM Path	108 do 10is cards OulPct	CLP1 Discards Out %	CLP1 Dscds Out %	619	4 Percent	*	100,0'DELTA_TIME'TTR_CONTENTION_STREAMING. TR INEVITE RIEST-TR INTERNAL	ž
nd	1 0 0 0			-			100.0 DELTA_TIME TR_CONTENTION_STREAMING TR_BU	
ATN Puth	100 do dio di di di	CLT Uscards &	CLP1 USC03 %	210	4 Percent	% -	RST	228
ATM Path	106 discarded cells	Disconded Cells	Discarded Cells	98 7	O Rate	0/200	(TR_SET_RECOVERY_MODE+TR_SIGNAL_LOSS)	98
ATM Poth	106 discardedCellsCut	Discarded Cells Out	Disc Cells Out	38	GRAGO	00/860	TR SET RECOVERY MODE	12
ATM Path	- G- F- G-	2	i				100.0 DELTA_TIME TR_SET_RECOVERY_MODE/PACKETS	2
ATM Path	106 discardsOurce	Discards Out %	Discards in %	529	4 Percent	8 3	NI NI CONTRACTOR CONTRACTOR OF	193
		2	2 00 0000	3	T GLOSTI	-	THOU TO OFFICE A THEFT SIGNAL LOSSIPACKETS OUT	198
ATM Path	106 discardsPct	Discards %	Discards %	604	4 Percent	1%	NOU.U DELIA_TIME"(I IL SET_I RECOVERY_MODE+ IR_SIGNAL_LOSS)/(PACKETS_IN+PACKETS_OUT))	245
ATM Path	108 cmdDoffs		allog Poor		1	,	(100.0°GOOD_POLLS(GOOD_POLLS+MISSED_POLLS+BA	
ATM Path	100 100 100 100 100 100 100 100 100 100	l atenda	Constant	000	44 Minister	P	D_POLLS*REBUCISITUELIA_IIME	٦
ATM Path	106 maximimChannels	Maximim Channels	Maximum Channele	187		n mseci	CALENCY CTD 1 ME TO ADDRESS CODIED!	5 6
ATM Path	106 maximumChannelsh	Maximum Channels In	Max Chennels In	202	ORate	DB C	TO THE	3 4
ATM Path	106 maximumChannelsOut	Maximum Channels Out	Max Channels Out	982	OlRate	0/886	TR ADDRESS COPIED	2 2
ATM Peth	200	Manage Police	Money Daile				(100.0*MISSED_POLLS/(GOOD_POLLS+MISSED_POLLS+B	1
ATEL D. II	INO THIS SELL COLD	MISSED FOUS	MISSED FOILS		4 Fercent	e ·	AD_POLUS+REBOOTS)} DELTA_TIME	8
ATM Pain	106 policyViolations	Policy Violations	Policy VIIns	\$	BCells	0/990	TREPREDIENCY	2
Aim Pan	106 policy/folationsin	Policy Violations in	Folicy vims in	418	SCells	0 /860	TR FRAME COPIED	2
ATH PAIN	106 policyVioletionSiriPct	Potrcy Victations in %	Picy Villas in %	924	4 Percent	2	100.0 DELTA TIME IR FRAME COPPEDIPACKETS IN	3
Will Pull	Total paricy violations Cut	Foicy violations Cut	Policy views Out	A	See	O//Bec	100.0 THE TIME TREQUENCY-	ē
ATM Path	106 policy/lefationsOutPet	Policy Violations Out %	Pley Vilns Out %	625	4 Percent	7	TR FRAME COPIED PACKETS OUT	281
ATM Peth	106 policyViolationsPct	Policy Violations %	Plcy Vitns %	623	4 Percent	- %	100.0*DELTA_TIME-TR_FREQUENCY/(PACKETS_IN+PACK ETS_OUT)	259
				-	!			-
ATM Path	108 reachability	Roachability	Keachability	182	10 Total Time	(%)	REACHABLE TIME 100,0 DELIA TIME/(101AL TIME 1.0)	2
ATM Path	106	Rohoola	Rebools	121	4 Percent	7	(100.0*REBOOTS)(GOOD_POLLS*MISSED_POLLS*BAD_POLLS*REBOOTS)(FOLLS*REBOOTS)(FOLLS*RIBSED_POLLS*BAD_POLLS*RIBSED_POLLS*BAD_POLLS*RIBSED_POLLS*BAD_POLLS*RIBSED_POLLS*BAD_POLLS*RIBSED_POLLS*BAD_POLLS*BAD_POLLS*RIBSED_POLLS*BAD_POLLS*BAD_POLLS*RIBSED_POLLS*BAD_POLLS*RIBSED_POLLS*BAD_POLLS*BAD_POLLS*RIBSED_POLLS*BAD_POLLS*RIBSED_POLLS*BAD_POLLS*BAD_POLLS*RIBSED_POLLS*BAD_POLLS*BAD_POLLS*RIBSED_POLLS*BAD_POLLS*RIBSED_POLLS*BAD_POLLS*RIBSED_POLLS*BAD_POLLS*RIBSED_POLLS*BAD_POLLS*RIBSED_POLLS*RIBSED_POLLS*BAD_POLLS*RIBSED_POLLS*BAD_POLLS*RIBSED_POLLS*RIBS	8
ATM Channel		AALS PDUS	AALS POUS	432	BCells	္ခ	DLL MCASTS+DLL COLLISIONS	237
ATM Channel	107 ani Shata Discorded	Discorded AALS PRIN	AALSPOUS Dsc	433	9 Cells	1890	DLL_FRAMES+DLL_BYTES	238
ATM Channel	107 aatSPdusDiscardedin	Lingcarded AALS POUR In	AALSPOUS Dacin .	33	8 Cells	9	DLL_FRAMES	
ATM Channel	107 ear Strongton Canada Service	IC separat AALS FOLS In N	AAI SPOIT Decim %	55	4 Percent	2	100.0 DELTA TIME OLL FRAMES/OLL MCASTS	2
ATM Channel	NOTAL DE CANADA CANADA (C)	Liscorded AALS FOUNDE	A SPECIA DE OU	2	BCells	0 /300	TOUL BYTES	24.5
ATM Channel	197 particular Charles		A STATE OF THE STA		THE COURT		100.0°DELTA TIME (OLL FRAMES+DLL BYTES)/(DLL MC	
ATM Change!	10.00	F targeton AAL 8 PPLAS &	AAL SPCI, Fee &	916	4 Percent	1 %	ASTS+OLL COLLISIONS)	238
		H. W.	AAI S POUN IN	6 ×	e Cons	0 /sec	DLL, MCABTS	200
ATM Channel	7 70 400	* P((*)	14 1 POUR OA	ě	P Celt	0/880	DLL COLLISIONS	۱,
ATM Channel	1): president	[andered	Austriany	2	IC Total Time	1(%)	(AVAILABLE_TIME*100.0)	1
			4	Ē	Al Derrond	_*	(100.0'BAD_POLLS(GOOD_POLLS*MISSED_POLLS*PAC_	20
ATM Charmei	1778-00 140	Land Man	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 5	Abremi	2	WAYTER INTERFES CITTING 100 015 (speed Total))	5
ATM Channol	11 had a 11 h	Description of the same of the	SW Usilin	12	4 Percent	2	((BYTES_IN*B*100.0)/5(speedin))	8
ATM Chance	100	The Contract of the Later of the Contract of t	BW CEI Out	23	4 Percont	*	((BYTES_OUT*8*100.0)/\$(speedOut))	89
ATM Channel	402 bits	2	Bits	437	15 Bits	0 /290	((BYTES_IN+BYTES_OUT)*8.0)	9
ATM Channol	107 bitstn	Eris in	Bits tn	438	15 Bits	0 /sac	(BYTES IN 8.0)	104
ATM Channel	107 bitsOut	Bits Out	Bilts Out	£3.	15 Bits	Olysec	(BYTES OUT 8.0)	8
ATM Channel	107 bytes	Bytes	Bytes	7 9	1 8/105	O Page	BYTES IN	28
ATM Channel		Bytes in	Bytes Out	200	1 Bytes	Olysec	BYTES OUT	S
ATM Channol	107/bytesOut	Byres Out	Origo cur					í

			Late of Sales	3	section 1d feetant	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
ATM Channel	Grament, type symbol	Colls	Cells	19	O Rate	O/sec	PACKETS IN+PACKETS OUT	: F
ATM Channel	107 cellstn	Cells in	Cells In	82	ORate	oes/o	PACKETS IN	27
ATM Charmer	107/cellsOut	Cells Out	Cells Oct	204	0 Rate	0/200	PACKETS OUT	2
ATM Channel	107/cb0Calls	Ct P0 Cells	C PO Cells	423	BCells	0//880	IPACKETS IN+PACKETS OITH-TR BURST	167
ATM Channel	107 chocelisin	C. Po Cells to	C PO Cells to	424	B Cells	Olsec	PACKETS IN TRINITERNAL	148
ATM Channet	107 ctp0CallsOut	CLP0 Cells Out	CLP0 Cells Out	425	8 Ceffs	os/(0	PACKETS OUT-TR BURST-TR INTERNAL)	149
er				-			(TR_SET_RECOVERY_MODE+TR_SIGNAL_LOSS)-	
MATM Channel	107 cp0Discards	CLP0 Discards	CLP0 Discards	420	BICEIIS BICEIIS	Ol/sec	TR CONTENTION STREAMING	35
		77	11 20 1120 113		CIED D	Sperin	MODULE TA TIME TO BE DECOMED MODE	â
ATM Channel	107 dp0DiscardsInPct	CLP0 Discards in %	CLP0 Dscds In %	621	4 Percent	78	TR_LINE/(PACKETS_IN-TR_INTERNAL)	243
ATM Channel	107 cto0DiscardsOut	CLP0 Discards Out	CCP0 Discards Ou	422	8 Cells	nes/ U	TR_SIGNAL_LOSS-(TR_CONTENTION_STREAMING- TR_INEL	65)
				_			100.0'DELTA_TIME'(TR_SIGNAL_LOSS-	
ATM Channel	107 dp0DiscardsOutPct	CLP0 Discards Out %	CLP0 Decde Out %	622	4 Percent	**	TR LINED/IPACKETS OUT-(TR BURST-TR INTERNAL)	244
							100.0 DELTA_TIME ((TR_SET_RECOVERY_MODE+TR_SIGNAL   105%).	
							TR_CONTENTION_STREAMING)/((PACKETS_IN+PACKETS	
ATM Channel	107 dp0DiscardsPct	CLP0 Discards %	CLP0 Oseds %	620	4 Percent	8	OUT)-TR_BURST)	242
ATM Channel	107/4510-1615	CLT Cells	2010	1	alcolle	Olysec	TR BUKSI	=
ATA Charles	10/ apicelisin	CLT Cells in	CLF1 Cells in	416	S CONTRACTOR	Olygec	INIERMAL	2
ATM Channel	107 CP1 Censuiper	CLY CERSIE &	S III S III S		4 Percent	2 5	TO DITION TO WITHOUTH	3
ATM Channel	107/ch1CelleO.404	C P1 Calle Out 8	CI PI Calls Out &	125	Dorront	1 6	100 DIVINE DIDET TO MITCONA VOACHETS OFF	3 2
ATM Channel	107 do 10 alla pet	CIPT Cells %	CLP1 Calls %	748	4 Percent	8 8	SOUTH BOAS FIRE WIENERS OF STATE OF STA	326
ATM Channel	107 do1Discards	CLP1 Discards	CLP1 Disc	69	8 Celts	0/890	TR CONTENTION STREAMING	4
ATM Channel	107 cp1Discardsin	CLP1 Discards In	CLP1 Discin	408	8 Cells	0/280	TRILINE	16
ATM Channel	107 dp1DiscardsInPct	CLP1 Discards In %	CLP1 Dscds in %	938	4 Percent	1 %	100.0*DELTA_TIME*TR_LINE/TR_INTERNAL	82
ATM Channel	107 dp1DiscardsOut	CLP1 Discards Out	CLP1 Disc Out	410	8 Celts	0/860	TR CONTENTION STREAMING TR LINE	127
ATM Channel	107 dp1DiscardsOutPct	CLP1 Discards Out %	CLP1 Dscds Out %	619	4 Percent	26	100.0'DELTA_TIME'(TR_CONTENTION_STREAMING- TR_LINE)(TR_BURST-TR_INTERNAL)	230
		200	70 10 10 10 10 10 10 10 10 10 10 10 10 10	643	A Bernard	ğ	100.0*DELTA_TIMETTR_CONTENTION_STREAMING/TR_BU	228
Atm channel	107 COLUMNIA	Circumod Colle	Discarded Calls	186	ORate	Olfsec	(TR SET RECOVERY MODE+TR SIGNAL LOSS)	g
ATM Change	10/10/508/06/08/8	Discarded Calls In	Disc Cells In	       	ORate	Ol/sec	TR SET RECOVERY MODE	12
ATM Channel	107 discarded Cells Out	Discarded Cells Out	Disc Cells Out	235	0 Rate	0/280	TR_SIGNAL_LOSS	13
							100.0'DELTA_TIME'TR_SET_RECOVERY_MODE/PACKETS	ţ
ATM Channel	107 discardsinPct	Discards In %	Discards in %	220	4 Percent	e 8	AND OTHER TIME TO SIGNAL LOSSIPACKETS OUT	198
ATM Channel	107 discardsCutret	Uscards Out %	מופרפותם כת יש	3	TION DE		100,0'DELTA TIME'TR SET RECOVERY MODE TR SIG	
ATM Channel	107 discardsPct	Discards %	Discards %	604	4 Percent	1 %	NAL_LOSS)/([PACKETS_IN+PACKETS_OUT))	245
i	E CO	Dolla	. Good Polls	118	4 Percent	8	(100.0*600D_POLLS/(GOOD_POLLS+MISSED_POLLS+BA D POLLS+REBOOTS))*DELTA_TIME	57
ATM Changel	107 Journal	latency	Latency	80%	11 Milliseconds	1 (msec)	LATENCY	æ
AIM CIGNID	Outros of the control		Libert Dolle	- 5	4 Dornant	à	(100.0*MISSED_POLLS/(GOOD_POLLS+MISSED_POLLS+B	83
ATM Channel	107 missedPolls	Missed rulis	Dollar Mine	417	R Cells	Olfsec	TR CONGESTION	22
ATM Channel	10/ policyviolations	Defice Violetions in	Policy Vilna In	418	8 Cells	D/Sec	TR LOST FRAME	22
ATM Channel	10/1policyViolationsIII	Policy Violations in %	Picy Vitus In %	624	4 Percent	200	100.0 DELTA TIME TR LOST FRAME/PACKETS IN	247
ATM Change	407 policy violations Out	Policy Violations Out	Policy Vilra Out	419	8 Cells	0 /sec	TR CONGESTION-TR LOST FRAME	146
in the second second	in the second se	2	10 mills 1 mills	36.9	4 Downson	7	100.0*DELTA_TIME*(TR_CONGESTION-	248
ATM Channel	107 policy Violations OutPct	Policy violations Out as	Figy viting Cut 78	3	1		100.0 DELTA_TIMETTR_CONGESTION (PACKETS_IN+PAC	
ATM Channel	107 pollcyViotationsPct	Policy Violations %	Picy Vilns %	623	4 Percent	2%	KETS_OUT)	246
ATM Channel	107 machability	Reachability	Reachability	182	10 Total Time	1 (%)	(REACHABLE TIME 100.0 DELTA TIME/TOTAL TIME 1.0)	76
		Dobook	Rethoofs	12	4 Percent	*	OLLS+REBOOTS) "DELTA_TIME	8
ATM Channel	107 reboots	Repools	- Constant					

Reufer	200 availability	Availability	Availability	181	10 Total Time	United type text	COLEXPIREDION	
Router	200 ave Une Utilization	Ī	Av Une Ulii	99	4 Percent	78	DI BCASTR	T
Router	200 avg Packel Discard Ral	late Av Packel Discard Rate	Av Pkt Dscrd Rte	129	4 Percent	2 2	DIL RCV OFF FRAMES	٦
Bouter	200 avgPackelFault		Av Pkt Error	99	4 Percent	1%	DLL_XMT_OFF_FRAMES	۳
and an analysis of the state of	200 bed Potts	Rad Polis	Rad Polls	130	d Percont	- 3	(100.0'8AD_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD_	5
Router	200 discardsin	Discards In	Discards In	196	2 Frames	0 /880	DIT COLLECTOR	P
Router	200 discardsOut	Discards Out	Discards Out	197	2 Frames	0/860	ITR FRAME COPIED-DIL COLLISIONSI	12
Abuter	200 errors	Total Errors	Til Errors	125	2 Frames	0/800	TR FREQUENCY	3 2
Router	200 errorsin	Emons In	Emors in	213	2 Frames	0/890	OLL ERRORS	٤
Souter	200 errorstnPct	Errors in %	Errors In %	530	4 Percent	- 2%	100,0"DELTA TIME"DIL ERRORS/DIL FRAMES	Ē
Router	200 errorsOut	Errors Out	Errors Out	212	2 Frames	Offsec	TR FREQUENCY-DIL ERRORS	8
							100.0 DELTA_TIME (TR_FREQUENCY.	
router	200 anorsoutPet		Engrs Out %	532	4 Percent	1 %	DLL_ERRORS)/(TR_LOST_FRAME-DLL_FRAMES)	194
Kouter	200 forwardsdAtalkPacks	kets Forwarded Appletalk Pkts	Frwd Apple Pkts	7.5	2 Frames	0 /860	TR ADDRESS COPIED	2
Rauter	200 forwardedDecnetPacke	g)	Frwd Decnt Pkts	7.3	2 Frames	0//980	TR INTERNAL	=
Router	200 forwardedlpPacket	Forwarded IP Pitts	Fruid IP Pikts	72	2 Framee	0/200	TR BURST	1
Router	200 forwarded pxPacke		Frwd IPX Pkts	76	2 Frames	0//80	TR CONGESTION	2
Router	200 forwardedXnsPacket		Frwnd XINS Pikts	74	2 Frames	0//360	TR ABORT	\$
Router	200 frames	ľ	Tt Frames	123	2 Frames	0/860	TR LOST FRAME	3
	:						(100.0°GOOD_POLLS/(GOOD_POLLG+MISSED_POLLS+BA	
Kourer	200 geodPolls	Good Polls	Good Polls	198	4 Percent	- 2%	D_POLLS+REBOOTS))*DELTA_TIME .	21
Router	200 lalency	1	Lalency	208	11 Milliseconds	1 (msec)	LATENCY	ة
Router	200 learningBridgedFacke	kata Learning Bridged Pkts	Lmg Braga Pitts	5	2 Frames	0//880	TR CONTENTION STREAMING	2
Router	200 microsofta	Affectal	Misend Polis	-	Dorrant		(400,0*MISSED_POLLS/(GOOD_POLL8+MISSED_POLLS+B	g
Rauter	ZOO non Intensi	Nonunicast	Norunicast	28	2 Frames	0/890	TR 110 FRAMES	315
Router	200 Inon Unicestin	Nonunicast in	Nominicast In	198	2 Frames	0 /sac	DL MCASTS	ľ
Router	200 non UnicasiOut	Nonunicast Out	Nonunicast Out	199	2 Frames	0//300	(TR LLC FRAMES-DIL MCASTS)	8
Router	200 other Control Perkets		Other&Critif Pkts	417	2 Framos	0 /260	(TR_LOST_FRAME-DIL_FRAMES)-TR_BURST- TR_CONGESTION-TR_CONTENTION_STREAMING	3
1000			Reschability	£	10 Total Time	1/6/1	REACHABLE TIME 100 OCIDELTA TIME/1001	15
		Γ				-	(100.0'REBOOTS/(GOOD_POLLS+MISSED_POLLS+BAD_P	1
Router	200 reboots		Reboots	121	4 Percent	*	OLLS+REBUOTS)/ DELTA, IIME	3
Router	200 totalBytes	1	Til Bytes	124	Bytes	0/890	TR TOKEN	P
Router	200 total Frames Discard	٦	Til Firms Discard	126	2 Frames	0/200	TR FRAME COPIED	Q.
Fourer	200 totalincomingBytes	Total Incoming Bytes	Total in Divise		2 Francia	O (Sec	DIL BOANES	1
Rouler	200 Intelligence	Ť	Til Out Bytes	188	1 Bytes	0/sec	(TR TOKEN-DLL BYTES)	74
Router	2001totalOutophoPackets	ĺ	Td Out Pkts	70	2 Frames	0 feec	(TR_LOST_FRAME:DLL_FRAMES)	æ
Router	200 unknownProtocolPact	sta	Union Proto Pkts	104		0 /560	TR LINE	\$
Router	201 availability		Availability	181	10 Total Time	1(%)	(AVAILABLE_TIME*100.0)	F
Router	201 avgUneUtilization	П	Av Une Uiil	99	4 Percent	1%	DLL BCASTS	4
Router			Av Pkt Oscad Rie	29	4 Percent	2	DLL RCV OFF FRAMES	1
Router	201 avgPackelFault	Av Packet Error Rato	Av Pkt Error	88	4 Percent	*	CLL XMT OFF FRAMES	٩
-	100000000000000000000000000000000000000	0	Red Polls	120	4 Percent	*	(1000-BAD_FOLICA(GOOD_FOLICATIONSSED_FOLICATIONS)	29
Router	201 Deduction	Bridged Dite	Bridged Pkts	87	2 Frames	0/890	TR CONTENTION STREAMING	45
Pourier	2011december	Discards in	Discards In	196	2 Frames	0//69c	DIL COLLISIONS	6
Router	2016tecardeOut	Discards Out	Discards Out	197	2 Frames	0 /880	(TR_FRAME_COPIED-DLL_COLLISIONS)	8
Roufer	201 arrors	Total Errors	TU Errors	125	2 Frames	0 /880	TR FREQUENCY	2
Raufer	201 errorsh	Errors In	Errors In	213	2 Frames	0 /36c	DLL ERRORS	위
Router	201 errorstrePct	Errors In %	Errors in %	530	4 Percent	4.%	100.0"DELTA TIME DIL ERRORS/DLL FRAMES	<u></u>
Router	201 errorsOut	Enars Out	Errons Out	212	2 Frames	0//88c	TR FREQUENCY-DIL ERRORS	S.
Order	HQH-Qarred 100	From Out %	Errors Out %	532	4 Percent	1 %	100.0 DELIA_LIME (I.K. FREQUENCY: DLI_ERRORS)((TR_LOST_FRAME-DLI_FRAMES)	4
Baufar	201 fastPacketsin	Fast Pkts In	Fast Pkts in	85	2 Frames	0 //sec	TR, SIGNAL, LOSS	2
Router	201 fastPacketsOut	Fost Pkts Out	Fast Pkts Out	98	2 Frames	01/590	TR BIT STREAMING	=
1 Applica								

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	Informant from	combol	lahel	short label	Ivar Id Junits Id label	s ld label	units type fext	Icol expression
Rouler	201		Forwarded Appletalk Pkts	Frund Apple Pkts	75	2 Frames	oes/ 0	TR ADDRESS COPIED
Roufer	20,00	fowardedDemetParkets	✝	Frwd Decnt Pkts	73	2 Frames	0//860	TR INTERNAL
Router	Ŕ	201 forwarded of Packets	1	Frund IP Pikts	72	2 Frames	0//86	TR BURST
Position	Š	from meda offere Destrote	т	Enand IDX Dirie	Ĭ,	2 Framae	O lear	TO CONCECTION
- Constant		IOTHAI UBURAN BUNGIS	7	1000			2010	10 40001
- annex	íR.	iorwardedXnsPackets	┪	TOWED AND PRIS	1	Z rianes	0.0860	I'R MOUK!
Couler	201	frames	Total Frames	11 Frames	32	2 Frames	O (sec	IIK_LOST FRAME
***				-	-			(100.0°GOOD_POLLS/(GOOD_POLLS+MISSED_POLLS+BA
Souter	201	l goodPoils	Good Polls	Good Polis	9	4 Percent	7%	D_POLLS+REBOOTS))*DELTA_TIME
Youter	Ś	latency	Latency	Latency	208	11 Milliseconds	1 (msec)	LATENCY
A	-				- 5			(100.0°MISSED_POLLS/(GOOD_POLLS+MISSED_POLLS+B
Kauter	LDZ	missedPolls	Missed Polis	Missed Polis	EL.	4 Percent	%	AD_POLLS+REBOOTS))*DELTA_TIME
Koufer	Ö	201 nonUnicast	Nonunicast	Nonunicast	36	2 Frames	0 /280	TR_LLC_FRAMES
Router	201	nonUnicastin	Nonunicast in	Norronicast In	198	2 Frames	oes/ 0	DUL_MCASTS
Router	201	InorthleastOut	Nonunicast Out	Nonunicast Out	199	2 Frames	0)/280	(TR LLC FRAMES-DLL MCASTS)
								(TR_LOST_FRAME-DIL_FRAMES)-TR_BURST-
Router	201	201 otherControlPackets	Other&Control Pkts	Other&Cntrl Pkts	=	2 Frames	oes/ 0	TR CONGESTION-TR CONTENTION STREAMING
	-			D. seek of Billian	Ę	100		
10000	8	20 r reachmonny	Reachabling	New State of the s	102	IO FORM HILLER	(A)	(REACHABLE TIME TOU'D DELIA TIME(TOTAL TIME T.U)
Datiler	-		100	Ochoode	- 5	4 Dormont	6	(TWW. REBOUTS/GOOD_POLLS+MISSED_POLLS+BAD_P
Desilor	1	approx.	Sign Paris	Chin Dide to	2 60	T COUNTY	2	OLUSTREBUCION DELIA TIME
ulor	100	204 Stown Burdenstill	Sion Tale III	Cinciple Ort	3 8	2 Cromos	oper o	TO SET BEOOMED ANDE
Berger	2 2	Sign Packats Out	SION TRIS COL	Ta S. Co.	5 5	10.425	O LOGO	THE SELL RECOVERS MODE
10101	102	ional by the	Table Course Discorded	TH Grant Discount	136	2) Gramon	0/000	AND TORSES
Kouler	107	coral Frames Discarded	Idal Frantes Ciscarded	T-1-1 to Distance	07,	4 Didag	Olisec	IN TRAME COPIED
Autorier Partie	200	(Oleilincomingsytes	rate incoming bytes	Tatal to Dide	2 5	2 Comon	Olype Olype	DUL BY IES
router	207	rotalincoming-ackets	Color incoming Page	Turi O Design		Z Liames	Ulysec	DLC TRAMES
rouier	107	localinguica e un propos	Cora input Caeue Drops	Ta Out Brans	6	Dates	Olygo	COLC. IRRIVATION
Kouter	201	lotaiOutgoingBytes	lotal Outgoing Bytes	To Our Bytes	2 5	i Dyres	DIVERC	(TR COREN-DEL BYTES)
Kouter	201	totalOulgoingPackets	Total Outgoing Pkts	TE OUT PKIS	2 6	Z Frames	Disec	(IR LOSI FRAME-ULL PRAMES)
Router	201	totalOutputQueueDrops	Total Output Queue Urops	Ta Out Corons	100	O Case	Olygon	DEL CASI FRANCO
Kourer	102	rotal descendent	Halance Designed Dide	I Inter Proto Picts	104	2 Frames	O Asic	TR L'AR
Country Dive Dark James	200	Company Control Section	Andiophilibs	Aveilability	184	40 Total Time	1/6/1	(AVAILARIE TIME+100 0)
Switch Dies Backstans	202	hadaling tilleston	Barbylana Hilitalian	Backulana Util	540	4.Percent	%  -	DLL BCASTS
חומו ביות ביים המשלים ומ				0 7 - 0	- 5	4 Decreed	3	(100.0'BAD_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD_
Switch Plus Backplane	202	202 badPoils	9104 089	SIOL DRO	3	T O O O	er .	(100.0°GOOD_POLLS(GOOD_POLLS+MISSED_POLLS+BA
Switch Plus Backplane	202	goodPolls	Good Polls	Good Polls	=	4 Percent	%	D_POULS+REBOOTS)]*DELTA_TIME
Switch Plus Backplane	202	202 latency	Latency	Latency	208	11 Miliseconds	1 (msec)	LATENCY
Switch Dins Backnisms	e.	202 missac@ode	the nd Pats	Mened Pofs	119	4 Percent	1 %	(100.0°MISSED_POLLS/(GOOD_POLLS+MISSED_POLLS+B AD_POLLS+REBOOTS)*DELTA_TIME
				!		-	120/1	(A) POSMIT INTOTACE AT 1988 AND STATE TO SERVICE TO SER
Switch Plus Backplane	£	700 beachasta	Bo 0-018	Angena	700	10 total time	(2)	TO TOKEN
Switch Plus Backplane	7	Tiple of the second	5.1			The state of the s	19/6/	WAVAII ABI E TRACE-400 ON
uter QPU	152	App on the second						(100.0'BAD_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD_
Bouler CPU	8	2	2 Pe	Pag Pors	120	4 Percent	*	POLLS+REBOOTS))*DELTA_TIME
illar CPI I	2	SCHOOL COOL PURE	Perfor Cross Parties	But Create Fed	63	5 Per Second	-	BYTES OUT
Pontor CP1	-	Total Section 1	P. Apry Upped	buffers Used	69	6 Buffers	4	TR_CONTENTION_STREAMING
25					_		<u>;</u>	(FLOAT4(TR_CONTENTION_STREAMING)/FLOAT4(TR_BIT
Router CPU	82	250 huflertill peron	Buller L'88 malern	Buffer Util	208	4 Percent	<u> </u>	STREAMING)) DELIA TIME TUU.U
Router CPU	952	DOC DOC	DVA OLIV	TOTAL TRIBATION	16	4 Percent	4	TR SET RECOVERY MODE
Router CPU	8	250 chocol/secon	Free Merrore	Free Memory	92	7/Bytes	4 (bytes)	TR_SIGNAL_LOSS*1000.0
Router CA'D	nez	A DUBANABA II OCZ	Section Designation				;	(100.0'GOOD_POLLS/(GOOD_POLLS+MISSED_POLLS+BA
Router CPU	250	250 goodPalls	Good Polls	Good Polls	₽ 8		2	D PULLS+KEBUOI S) DELIA IIME
Router CPU	250	latency	Latency	Latency	500	1 P MILISECUROS	(alised)	MAN SEED POLIS/IGOOD POLIS+MISSED POLLS+8
	-		Attorned Oothe	Missed Polls	119	4 Percent	*	AD_POLLS+REBOOTS))*DELTA_TIME
Kouter CHO	700	COUNTSHOPORS	2000000					

								ĺ
lode	element type symbol	labet	short label	var id units id label		units type text	col expression	2
Router CPU	250 reachability	Reachability	Reachability	ŝ	10 Total Time	1 (%)	(REACHABLE_TIME*100.0*DELTA_TIME/(TOTAL_TIME*1.0))	2
10010		1 1	aporto 0	Ş	A Descond	9	(100.0°REGOOTS/(GOOD_POLLS•MISSED_POLLS•BAD_P	5
Kouler CPU	Zeulreboots	Kaboota Total Differen	Total Buffers	3 8	A Prescent	-	TO BIT STOCKNING	3 2
Donder Coll	254 meileriles	Aveilability	Availability	3 2	40 Total Timo	1967	IAVAII ARI E TIME (MO)	-
							(100.0-BAD_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD_	Γ
Routor CPU		Bad Polls	Bad Polls	120	4 Percent	78	POLLS+REBOOTS))*DELTA_TIME	B
Router CPU	251 bigBufferHits	Big Buffer Hits	Big Buffer Hits	86	5 Per Second	-	TR_ADDRESS_COPIED	2
Router CPU	251 MgBufferMissos	8lg Buffer Missos	Big Buffer Misse	8	5 Per Socond	-	TR_CONGESTION	<u>ج</u>
Router CPU	251 bufferCreateFailures	Buffer Create Failures	Buf Create Fall	8	5 Per Second	-	BYTES_OUT	R
Router CPU	251 bufforHils	Buffer Hils	Buffer Hits	435	5 Per Second		(TR_LINE+TR_ADDRESS_COPIED+TR_INTERNAL+TR_LOS  T_FRAME+TR_FREQUENCY)	158
							(TR_BURST+TR_CONGESTION+TR_ABORT+TR_TOKEN+T	
Router CPU		Buffer Misses	Buffer Misses	436	5 Per Second	-	R_FRAME_COPIED)	20
Router CPU	251 buffersUsed	Buffers Used	Buffers Used	88 8	6 Buffers	4	TR CONTENTION STREAMING	2
Router CPU	251lbusDrops	Bus Drops	Bus Drops	86	5 Per Second	-	DLL ALGN ERRORS	=
Router CPU	251 cpuUtilization	CPU Utitization	CPU Utilization	68	4 Percent	₽ -	TR SET RECOVERY MODE	
Kourar CPO	251 (говМетогу	ггөө Мөтогу	Free Memory	75	/ Byres	4 (Dyles)	1	8
Router CPU	25.1	Good Polls	Good Polls	- 82	4 Percent	*	(100.01600D_POLLS(600D_POLLS*MISSED_FOLLS*BA	6
Router CPU	251 hunsPufferHits	Huan Buffer Hits	Huge Buffer Hits	102	51Per Second	-	TR PREQUENCY	24
Router CPU	251 hunderfliends	Huge Buffer Misses	Huge Buffer Miss	103	5 Per Second	-	TR FRAME COPIED	25
Rauter CPU	251 largeBufferHits	Large Buffer Hits	Lge Buffer Hits	100	5 Per Second	-	TR_LOST_FRAME	22
Rautor CPU	251 lorgeBuffcrMisses	Largo Buffer Misses	Lge Buffer Miss	101	5 Per Second	- 1	TR_TOKEN	23
Router CPU	251 latency	Latency	Latency	802	11 Milliseconds	f (msec)		ā
Router CPU	251 mediumBufferHits	Modlum Buffer Hils	Med Buffer Hils	98	5 Per Second	-	TR_INTERNAL	۳
Router CPU	251 mediumBullerMisses	Medium Buffer Misses	Med Buffer Mila	26	5 Per Second	-	TR_ABORT	=
Bouler CPU	251 missadPolls	Missed Polts	Missed Polis	119	4 Percent	*	(100.0*MISSED_POLLS/(GOOD_POLLS+MISSED_POLLS+B   AD_POLLS+REBGOT3))*DELTA_TIME	8
			- C	Ê	E india	17461	(BEACHARI & TIME: 100 0:DELTA TIME: TOTAL TIME: 1.0))	78
Router CPU	251 reachability	Reachadility	Keacrapiniy	100	10101010101	100	1100 0'9EBOOTS/(GOOD POLLS+MISSED POLLS+BAD P	
Router CPU	251 reboots	Reboots	Reboots	121	4 Percent	%	OLLS+REBOOTS))*DELTA_TIME	8
Router CPU	251 small Buffer Hils	Small Buffer Hits	Sm Buffer Hits	æ	5 Par Second	-	TR LINE	١٩
Router CPU	251 smallBufferMisses	Srrall Buffer Misses	Sm Buffer Mits	88	5 Per Second	-	TR_BURST	1
Router CPU	251 totalBuffers	Total Buffers	Total Buffere	88	6 Buffera	4	TR BIT STREAMING	F
Switch CPU	252 availability	Availability	Availability	<u> </u>	10 Total Time	8	MANAGARIA DOLI SILOCODI DOLI SAMISSEN DOLI SANAN	1
1 GO HART	200000	Bad Polls	Bad Polls	120	4 Percent	*	POLLS+REBOOTS))*DELTA_TIME	8
Switch CPU	252lcoutifization	CPU Utilization	CPU Utilization	81	4 Percent	- %	TR_SET_RECOVERY_MODE	2
Switch CPU	252 fanStatus	Fan Status	Fen Status	537	0 Rate	0 /390	٦	7
Switch CPU	252 freeMemory	<b>Free Малюту</b>	Free Memory	23	7 Bykas	4 (Dytes)	Т	
100		100	Good Poils	118	4 Percent	*	D POLLS REBOOTS)) DELTA_TIME	57
Switch CFU	Signatural Cac	l afance	Latency	208	11 Milliseconds	1 (msec)	Γ	٥
Sufer CPU	252 memory leed	Memory Used	Memory Used	375	7 Bytes	4 (bytes)	Ħ	7
		To a second	Memory (6)	168	4 Porcon	35	(100°(TR_CONTENTION_STREAMING/TR_BIT_STREAMING	199
Switch CPU	252 memory Ulitzation	Memory Ounzailon	indicate of				(100.0*MISSED_POLLS/(GOOD_POLLS+MISSED_POLLS+8	
Switch CDI	252 missadPolls	Missed Polts	Missed Polls	1/9	4 Percent	7	AD POLLS+REBOOTS)) DELTA_TIME	8
Switch CPU	252 powerSupply1Status	Power Supply 1 Status	Pwr Spply 1 Stat	535	0 Rate	0/590	DLL FRAMES	7
Switch CPU	252 powerSupply2Status	Power Supply 2 Status	Pvr Spply 2 Stat	536	0 Refe	O Viseo	DIL BYTES	4
100 4417-0	To the second se	Rearthability	Reachability	182	10 Total Time	1 (%)	(REACHABLE_TIME*100.0*DELTA_TIME/(TOTAL_TIME*1.0))	2
			debarte	424	4 Percent	<u> </u>	(100.0*REBOOTS/(GOOD_POLLS+MISSED_POLLS+SML_P	90
Switch CPU	252 reboots	Reposis Termoratura Status	Terro Status	538	0 Rate	0 Asec	DLL_BCASTS	4
Series Cro	South and	Tonology Changes	Topology Changes	539	2 Frames	0 /290	DLL_RCV_OFF_FRAMES	D.
SWED CTO	call mind filmed and sec							

	element type	symbol	tabel	short label	var hi und	var hi  units_id  abel	units_type  text		8
Server	300	300 activeConnections	Active Connections	Active Conn	147	0 Rate	0//980	TR_BIT_STREAMING	14
orver	300	availability	Availability	Avaitability	181	10 Total Time	4 (%)	(AVAILABLE TIME 100.0)	11
Server	300	300 avgCpuUtilization	Average CPU Utilization	Avg CPU Util	162	4 Percent	4%	DIL_ALGN_ERRORS	Ξ
Sever	300	al Open	Bad Polls	Bad Polls	120	4 Percent	**	((100.0°BAD_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD_ POLLS+REBOOTSII*DELTA_TME	65
Server	300	300 coulmbalance	CPU Impalance	CPU Imbatance	52	4 Percent	l	TR_SET_RECOVERY_MODE	12
Server	300	dronnedConnections	Denned Connections	Dramoed Corn	148	0 Rate	0//860	TR CONTENTION STREAMING	19
Server	300	300 errors	Total Errors	Total Errors	289	2 Frames		TR FREQUENCY	24
Server	300	fileCarhaAttemete	File Carbe Attenute	Fie Cartin Afts	143	0 Rafe	١	DI TOANSITSTOIL VIIT OFF FRAMES	F
Server	300	SCO GleCacheHits	File Cache Hite	Fie Cartin Hits	141	O Pate	200/0	-1	3
Server	300	300 fileCacheMisses	File Cache Misses	Fle Cache Missel	182	O Rafe	200	DI TRANSITE	1
		enocamon and a	200000000000000000000000000000000000000	200000000000000000000000000000000000000	-	0000	Alage Alage	400 Older TA THEFTON TO ANICHTONIAL TO ANICHTS DEL	1
Server	300	300 fileCacheMissRate	File Cache Miss Rate	File Cache Miss	158	4 Percent	***	INDICTOR FRAMES!	99
Server	300	frames	Total Packets	Total Packets	180	2 Frames	0 /sec	PACKETS IN+PACKETS OUT	2
								(100.0°GOOD POLLS/GOOD POLLS+MISSED POLLS+BA	
Server	300	300 goodPolls	Good Polls	Good Polts	118	4 Percent	1%	D_POLLS+REBOOTS)  DELTA_TIME	25
ervar	300	largeCommBuffersUsed	Large Comm Buffers Used	Lrge Com Buf Usd	167	5 Per Second	-	TR ADDRESS COPIED	2
erver	300	latency	Latency	Latency	208	11 Millseconds	1 (msec)	LATENCY	£
	6		6				;	(100.0*MISSED_POLLS/(GOOD_POLLS+MISSED_POLLS+B	
Saver	2000	Suo missedralis	Missed Folis	Missed Foils		4 Percent	*	AD POLLS+REBOOTS))*DELTA_TIME	8
Control	300	pagerauis		Page rauns	<b>2</b> 5	o record	F	DUL ERRORS	2
ervai	300	sun pagesinageoin	rages raged in	rages raged in	8	or record		DUL FRAMES	
Server	300	pagesPagedOut		Pages Paged Out	137	5 Per Second	-	DUL MCASTS	~
Server	300	300 pagesSwappedin		Pages Swd In	138	5 Per Second	÷	DUL BCASTS	7
Server	300	pagesSwappedOut	Pages Swapped Out	Pages Swd Out	139	5 Per Second	1	DIL RCV OFF FRAMES	3
Server	300	300/physicalMemoryFree	Physical Memory Free	Phys Mem Free	708	7 Bytes	4 (bytes)	DIT_ENET_FRAMES-DIL_COLLISIONS	313
Sarver	300	300 physical Memory Used	Physical Memory Used	Physical Memory	145	7 Bytes	4 (bytes)	DIL COLLISIONS	6
		1 march 1 m			-0,				
Sarvar	3000	300 physical Metrory Unitzation	Physical Memory Curzanon	Priysical Memory	2	4 Percent	g F	TOU.O.DELTA TIME DIL COLUSIONS/UIL ENET FRAMES	8
Saver		300 reachability	Reschability	Reachability	182	10 Total Time	(%)	REACHABLE TIME-100 0-DELTA TIME/ITOTAL TIME-1.00	76
		The same of the sa						1100 O'REBOOTS/IGOOD POLLS+MISSED POLLS+BAD P	
Server	3008	300 reboots	Reboots	Reboots	121	4 Percent	*	OLLS+REBOOTSI) DELTA TIME	9
Server	300	300 small CommBuffers Dropped	Small Comm Buffers Dropped	Small Comm Buff	165	5 Per Second	-	TR INTERNAL	=
Server	300	300 total Bytes	Total Bytes	Total Bytes	140	1 Bytes	0//880	BYTES_IN+BYTES_OUT	BS
Server	300	totalCommFault	Total Comm Errors	Total Comm Error	163	5 Per Second	-	TR_FREQUENCY-TR_FRAME_COPIED	61
Server	3000	300 total Frames Discarded	Total Frames Discarded	71 Fms Discard	126	2 Frames	0/890	TR_FRAME_COPIED	25
Server	3000	300 totalincomingByles	Total Incoming Bytes	Total in Bytes	78	1 Bytes	0//380	BYTES_(N	28
Sørver	300	300 totatincomingPackets	Total incoming Pkts	Total in Pkts	11	2 Frames	0/280	PACKETS IN	27
Sorver	300	300 total Large CommBuffers	Total Large Comm Buffers	Til Lige Com Buf	166	5 Per Second	-	TR_ABORT	2
Server	3000	totalOutgoingBytes	Total Outgoing Bytes	TII Out Bytes	8	1 Bytes	Das/ 0	BYTES_OUT	2
Server	300	300 total Outgoing Packets	Total Outgoing Pkts	Til Out Pkts	2	2 Frames	0 /28c	PACKETS_OUT	RI'
Server	3001	300 total Physical Memory	Total Physical Memory	Total Phys Mam	144	7 Bytes	4 (bytes)	DUL_ENET_FRAMES	0 0
Server	300	totalVirtualMomory	Total Virtual Memory	Total Vir Mem	£ 5	7 59/88	4 (bytes)	IN LINE	3
Server	300	300 VirtualMemoryUsed	Virtual Memory Used	Vir Mem Used	3	/ Bytes	4 (bytes)	100 OFFICE TA THEFT DIPORTED ING	8
Servar	300	300 wrtustMemoryUtilization	Virtual Memory Utilization	VIT METHOLIS	247	4 resent	0 /cor	TO BIT STOEMING	=
Server	301	301 active connections	ACINE CONTECTIONS	Acave Colin		10 Total Time	1/40	(AVAII ARI F TIME 100 0)	1
Server	301	301 aveileditity	Availability	Ave CPI LIFE	19	4 Percent		DI ALGN ERRORS	F
Server	3613	avgcononizanon	Average Cro Cultance	200				MANGE POLLS/1GOOD POLLS+MISSED POLLS+BAD	
	200	1,000	Bad Dolla	Bad Polls	120	4 Percent	~~	POLLS+REBOOTS) PELTA TIME	8
Server	304	301 coulmbalance	CPU Imbalance	CPU Imbalance	159	4 Percent	1%	TR SET RECOVERY MODE	2
Server	304	301 droppedCornections	Dropped Connections	Dropped Conn	148	0 Rate	0 //860	TR_CONTENTION_STREAMING	2
Server	304	301 errors	Total Errors	Total Errors	289	2 Frames	0 // 860	TR_FREQUENCY	77
Samer	304	301 file Cache Attempts	File Cache Attempts	Fie Cache Atts	143	O Rate	0 /sec	DLL_TRANSITS+DLL_XMT_OFF_FRAMES	3
Server	301/	flleCacheHits	File Cache Hits	Fle Cache Hits	Ξ	O Rate	0/860	DLL XMT OFF FRAMES	1
Server	301	fieCacheMisses	File Cache Misses	Fie Cache Missd	142	O Rate	0//860	DUL TRANSILS	T
				on March of the	ĝ	A Barront	4	INDIA DELIA TIME DELL'INVIGITATORI STORE INVIGITATIONE DELL'INVIGITATIONE DELL'INVIGITATI	8
Server	301[	301 file Cache Miss Rate	File Cache Miss Rate	HIS CACIS WISS	200	#jr airein	201.		

				١	100	maile and leakant	1		2
Sarvar	Signature type symbol		Packets	Total Packets	9	2 Frames	0/890		20
							,	(100.0-GOOD_POLLS/(GOOD_POLLS+MISSED_POLLS+BA	3
Server	301	301 goodPolls	Good Polis	Good Polls		4 Percent	2	U POLLS*KEBOOTS) DELTA TIME	Ī
Server	301	largeCommBuffersUsed	Largo Comm Buffers Used	Lrge Com Buf Usd	9	5 Per Second	-	TR ADDRESS COPIED	्रा
Server	33	301 latency	Latency	atency	88	11 Millseconds	1 (msec)	LATENCY	Ē
	-00	T) Character	one of the state o	Mirror Delle	-	Domen	-	(100.0 MISSED, POLLS/(GOOD, POLLS*MISSED, POLLS*D	tr.
Sorver	30.5	201 Introduction	Physical Memory Free	Phys Mom Fran		7 Bylon	Aithutael	DI ENET ERAMER DI COLLISIONS	2
Server	301	ohysicalMemoryUsed	Physical Memory Used	Physical Memory	145	7 Bytes	4 (bytes)	DIT COLLISIONS	6
									Γ
Sorver	301	301 physicalMemoryUtilization	Physical Memory Utilization	Physical Memory	160	4 Percent	*	100.0'DELTA_TIME'DUL_COLLISIONS/DUL_ENET_FRAMES	8
Server	304	301 reachability	Reachability	Reachability	183	10 Total Time	132	(REACHABLE TIMESTON OF DELTA TIMESTOTAL TIMESTON)	- 2
			Guarante			2		1100 0*REBOOTS/(GOOD POLLS+MISSED POLLS+BAD P	T
Server	301	301 reboots	Reboots	Reboots	12	4 Percent	**	OLLS*REBOOTS)/DELTA_TIME	8
Server	301	301 smallCommBuffersDropped	Small Corum Buffers Dropped	Small Comm Buff	165	5 Per Second	-	TR_INTERNAL	\$
Sorver	301		Total Bytes	Total Bytes	140	1 Bytes	0/800	BYTES_IN+BYTES_OUT	82
Server	301	301 total CommFault	Total Comm Errors	Total Comm Error	163	5 Per Second	1	TR_FREQUENCY-TR_FRAME_COPIED	6
Sorver	301	301 total Frames Discarded	Total Frames Discarded	Till Firms Discard	126	2 Frames	0 /890	TR_FRAME_COPIED	53
Server	301	totalhicomingBytes	Total Incoming Bytes	Total in Bytes	78	1 Bytes	0 /890	BYTES_IN	8
Server	301	totalincomingPackets	Total Incoming Pkts	Total in Pixis	77	2 Frames	0//86	PACKETS_IN	~
Server	301	301 total Larga CommBuffers	Total Large Comm Buffers	Til Lige Com Buf	166	5 Per Second	1	TR_ABORT	2
Server	301	ItotalOutgoingBytes	Total Outgoing Byles	Til Out Bytes	80	1 Bytes	Ol/sec	BYTES_OUT	8
Server	301	totalOutgoingPackets	Total Outgoing Pkts	Ti Out Pkts	۴	2 Frames	0/260	PACKETS_OUT	8
Sarvar	301	totalPhysicalMemory	Total Physical Memory	Total Phys Mem	144	7 Bytes	4 (bytes)	DUL_ENET_FRAMES	40
Server	305	302 activeConnections	Active Connections	Active Conn	147	0 Rate	0/890	TR BIT STREAMING	=
Sorver	302	302 availability	Avalabiliy	Availability	181	10 Total Time	1(%)	(AVAILABLE_TIME*100.0)	=
Server	302	302 avgCpuUlilization	Average CPU Utilization	Avg CPU Util	162	4 Percent	1%	DUL_ALGN_ERRORS	=
						!	;	(100,0'8AD_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD_	ŧ
Server	302		Bad Polls	Bad Polls	120	4 Percent	P .	POLLS+REBOOTS)) DELTA, TIME:	7
Servar	302	302 cpulmbatance	CPU imbalance	CPU Imbalance	8	4 Percent	28	TR SET RECOVERY MODE	7
Server	302	droppedConnections	Dropped Connections	Dropped Conn	9	0 Rate	0/380	ITR CONTENTION STREAMING	1
Server	302	302 errors	Total Errors	Total Errors	288	2 Frames	0/890	THE PREDICT	3
Sørver	302	302/fileCacheAttempts	File Cache Attempts	He Cache Atts	9	0 Rate	01/890	DUL TRANSITUATUL XMI OFF FICAMES	3
Servar	302	302 filleCacheHits	File Cache Hits	Fle Cacho Hita	ž	0 Rate	0//890	DIL XMI UPP PRAMES	7
Sørver	305	302 fileCacheMisses	File Cache Misses	Fie Cache Missd	142	O Rate	Ol/sec	10CL (RANSITS	T
					-07	10000	- 6	MOUTULE INTERPRETATION OF THE PARTY OF THE P	8
Sarver	302	302 (fleCacheMissRate	File Cache Miss Kate	His Cache Miss	B	2 Canno	8 - C	DACKETS IN-PACKETS OUT	٤
Sorver	305	ивтер	Lotel Peckets	Total reckets	3	00110117		1100.0-GOOD_POLLS/IGOOD_POLLS+MISSED_POLLS+BA	
	-	ollogous	Good Polls	Good Potts	118	4 Percent	8	D POLLS+REBOOTS))*DELTA_TIME	Ġ
Server	2005	202 lessa CommBuffore land	Larra Corrm Buffers Used	Lrge Com Buf Usd	19,	5 Per Second	1	TR_ADDRESS_COPIED	8
Some	302	302llatency	Latency	Latency	208	11 Millseconds	1 (msec)	LATENCY BOLLS	ī
					-		***	(100.0*MISSED_POLLS/(GOUD_POLLS+MISSED_FOLLS+B	8
Server	305	302 missedPolls	Missed Polis	Missed Polls		4 Fercent	R		Ī
		1	Doorholifik	Roachability	<u>8</u>	10 Total Time	1(%)	(REACHABLE TIME 100.0 DELTA TIME (TOTAL TIME 1.0))	2
Server	306	302 reacreamin	Conclount					(100.0*REBOOTS/(GOOD_POLLS+MISSED_POLLS+BAD_P	5
Server	302	302 reboots	Reboots	Reboots .	2	4 Percent	2	OCLS*REBOOTS))***OELIA_IIME	3 4
Sorver	302	302 smallCommBuffersDropped	Small Comm Buffers Dropped	Small Comm Buff	克	5 Per Second	-	TR INTERNAL	ä
Source	99	totalBytes	Total Bytes	Total Bytes	á	1 Bylos	0/880	BYTES INVESTIGATION	3 &
Society	Sec.	totalCorrenFault	Total Comm Errors	Total Comm Error	8	5 Per Second		LIK FREQUENCY-IN FRAME WATED	*
Conor	302	total Frames Discarded	Total Frames Discarded	Til Frms Discard	22	2 Framos	0/686	IK FRAME CUPIED	g g
2000	302	totaltricomingBytes	Total incoming Bytes	Total in Bytes	2	1 Byles	0/880	BYTES IN	3 5
Sarver	302	302 totalinconingPackets	Total Incoming Picts	Total in Pikts	=	2 Frames	0/880	TACKETS IN	9
Server	302	302 total argeCommBuffers	Total Large Comm Buffers	Te Liga com But	8 8	S Per Second	000/0	RYTER OIL	8
Sarver	305	302 totalOutgoingBytes	Total Outgoing Bytes	Til Out Dide	3 8	2 Frames	0/880	PACKETS OUT	R
Server	305	302 total Outgoing Packets	Total Cuigoing Pros	Acting Com	167	ORate	0/960	TR BIT STREAMING	Ξ
Server	303	activeComections	Active Cornections	ACIIVE COIIII		Minne			

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Control	element type symbol	(abel	Snort raber	Var to	units to tabel	Units type text	COL expression	2 F
Server	303 aveCnd Rillsation	Average CPU Liffization	Ava CPU UIII	162	4 Percent	/w/ 1-1-2-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	DI AIGN FRANKS	=
	1000						(100.0'BAD_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD_	T
Berver	303 badPotts	Bad Polis	Bad Polls	120	4 Percent	1 %	POLLS+REBOOTS))*DELTA_TIME	59
Server	303 cpulmbalance	CPU Imbalance	CPU Imbalance	159	4 Percent	1%	TR SET_RECOVERY_MODE	2
Server	303 droppedConnections	Oropped Connections	Dropped Corn	148	0 Rate	0/890	TR_CONTENTION_STREAMING	¥]
Server	303 errors	Total Errors	Total Errors	289	2 Frames	0/890	TR_FREQUENCY	2
Sound	303 medecheditempts	File Cache Attempts	File Cache Alts	9	DRate	0/260	DLL TRANSITS+DLL XMT OFF FRAMES	8
Control	SUS INTECREDIENTES	rile Cache Filts	LIB Cadle Pigs	<u> </u>	UKate	0/280	DLL_XMT_OFF_FRAMES	9
Server	303 TIPCACHEMISSAS	File Cache Misses	FIE Cache Misse	142	O Rate	0/800	DLL_TRANSITS	7
Server	303 fileCacheMissRate	File Cache Miss Rate	File Cache Miss	añ.	AlDament		100.0 DELTA_TIME DLL_TRANSITS/(DLL_TRANSITS+DLL_	:
Server	303 frатев	Total Packets	Total Packets	199	2 Frames	0/685	DACKETS INSPANCED	3 8
				-		200/2	MANUAL MANUAL SHOOL DOLLSAMISSED POLITISABA	3
Server	303 goodPolls	Good Polls	Good Polls	118	4 Percent	***	D_POLLS+REBOOTS) DELTA_TIME	52
Server	303 Islency	Latency	Latency	208	11 Milliseconds	1 (msec)	LATENCY	8
	:	: !					(100.0*MISSED_POLLS/(GOOD_POLLS+MISSED_POLLS+8	
Server	303 mssedPolis	Missed Polls	Missed Polls	139	4 Percent	%	AD_POLLS+REBOOTS))*DELTA_TIME	28
Server	303 page- aults	Page Faults	Page Faults	146	5 Per Second		DILL_ERRORS	2
Server	303 pagesPagedin	Pages Paged in	Pages Paged in	98	5 Per Second	-	DUL_FRAMES	٦
Server	303 pages Paged Out	Pages Paged Out	rages raged Out		5 Per Second		DLI_MCASTS	7
Server	303 reachability	Reachability	Reachability	182	10 Total Time	(%)	(REACHABLE TIME 100.0 DELTA TIME/ITOTAL TIME 1.0))	192
							(100,0*REBOOTS/(GOOD_POLLS+MISSED_POLLS+BAD_P	Γ
Server	303 reboots	Reboots	Reboots	121	4 Percent	- 8	OLLS+REBOOTS))*DELTA_TIME	8
Server	303 total Bytes	Total Bytes	Total Bytes	140	1 Bytes	O /sec	BYTES_IN+BYTES_OUT	8
Server	303 total CommFault	Total Comm Errors	Total Comm Error	£	5 Per Second	-	TR_FREQUENCY-TR_FRAME_COPIED	9
Server	303 total incoming Bytes	Total incoming Bytes	Total in Bytes	2	1 Bytes	0 /590	BYTES_IN	2
Server	303 totalincomingPackets	Total Incoming Pkts	Til Ord Bytes	1	4 Bidge	289/0	PACKEIS IN	7 02
Server	303 foliation of parkage	Total Outcoing Date	Til Out Pitis	 	2 Frames		PACKETS OUT	8
Server	304 activeConnections	Active Connections	Active Conn	147	0 Rate		TR BIT STREAMING	4
Server	304lavallability	Availability	Availability	181	10 Total Time		(AVAILABLE_TIME*100.0)	11
Server	304 avgCpuUtifization	Average CPU Utilization	Avg CPU Util	162	4 Percent	1 %	DLL_ALGN_ERRORS	Ŧ
						,	C100.0*8AD_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD_	5
Server	304 badPolls	Bad Polls	Bad Polls	2	4 Percent	200	POLLS+REBOOTS))*DELTA_TIME	200
Server	304 cpu/mbalance	CPU impalance	CPU imbalance	2000	2 Framos	% C	TO EDECLIENCY	26
Server	304 errors	Total Emors	Total Dackets	164	2 Frames	01/980	PACKETS IN+PACKETS OUT	2
Salvei	2011001	2000		-			(100,0'GOOD_POLLS/(GOOD_POLLS+MISSED_POLLS+BA	
Server	304 goodPolls	Good Polts	Good Polls	418		1%	D_POLLS+REBOOTS))*DELTA_TIME	2
Server	304 latency	Latency	Latency	8	11 Millseconds	1 (msec)	LATENCY	·
	4 C C	Mirror Dolle	Missed Polis	1	4 Percent	***	(188,0 PM)SSED_POLLS/(GOUD_POLLS+MISSED_POLLS+P AD POLIS+REBOOTS); DELTA TIME	88
Corner	304 manage of the	Page Faults	Page Faults	146	5 Per Second	-	OLL_ERRORS	9
Server	304lpagesPagedIn	Pages Paged In	Pages Paged In	136	5 Per Second	1	DLL_FRAMES	٦
Server	304[pagesPagedOut	Pages Paged Out	Pages Paged Out	137	5 Per Second	1	DLL_MCASTS	~
		dill-de-	Reachability	8	10 Total Time	18/2	(REACHABLE TIME*100 0*DELTA TIME/(TOTAL TIME*1.0))	76
Server	304 reachabanty	Reactioning					(100.0"REBOOTS/(GOOD_POLLS+MISSED_POLLS+BAD_P	
Server	304 reboots	Reboots	Reboots	121	4 Percent	1%	OLLS+REBOOTS))*DELTA_TIME	8
Server	304 total Bytes	Total Bytes	Total Bytes	140	1 Bytes	0/880	BYTES IN-BYTES OUT	8
Sarver	304 totalCommFault	Total Comm Errors	Total Comm Error	163	5 Per Second	- 6	TR FREQUENCY-TR FRAME COPIED	3
Sarver	304 totalincomingBytes	Total Incoming Bytes	Total in Bytes		1 Bytes	0/880	BY LES IN	3 5
Server	304 totalincomingPackets	Total Incoming Pikts	Total in Pikis	E 8	2 Frames	Ol/sec	PACKE IS IN	R
Server	304 totalOutgoingBytes	Total Outgoing Bytes	Til Out Bytes	3 8	2 Frames	Ol/sec	PACKETS OUT	೩
Server	304 total Outgoing Packets	Total Outgoing Pixis	Total Vir Mem	149	7 Bytas	4 (bytes)	TR LINE	9
Server	304 totalvirtualwerrory	Maried Memory 1 feed	Vir Mem Used	35	7 Bytes	4 (bytes)	TR BURST	4
Server	304 virtualmemoryUsed	VICTURE MINISTERY CORD	And a mount of the					

	egament (voe Isvmoo)	label	short label	var id un	units Id liabel	units fype lext	col expression	8
Server	304 virtualMemoryUtilization	Virtual Memory Utilization	Virt Mem Uši		4 Percent	1%	100.0°DELTA_TIME*TR_BURST/TR_LINE	ڷ
Server	305 activeConnections	Active Connections	Activo Conn	147	OReto	0/290	TR BIT STREAMING	ľ
Server	305 avaltability	Availability	Availability	182	10 Total Time	1(%)	(AVAILABLE TIME 100.0)	Ĺ
Server	305 avgCpuUiitzetton	Average CPU Utilization	Avg CPU Uill	162	4 Percent	1 %	DUL ALGN ERRORS	
				-			(100,0'8AD_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD_	•
Control	Sup-Dad-ons	Dan Folis	Cott Libertain	2 5	4 Percent	-	TOLLS*IKEBUOI 8)) DELIA IIME	
Smyer	305 dimensellone	Demond Connections	Dronned Cono	2 5	A Preincerit	e 5	TE CONTENTION STORAGING	ľ
Sonore	305 00000	Total Emer	Total Errors	280	2 Emmis	38512	Constitution of the consti	16
Charles	epile cos	Sing Pine	1001 1100	203	2 rrainas	Olygge	I'N TRECOENCT	
Contor	Supplied Control of the Control of t	FIIB Cache Attempts	FID CACIO AllS	2	CITERO	01/380	DEL TRANSITS+DIL XMT OFF FRAMES	3
Contract	Sub-Brand and Su	THE CACHE THIS	Clo Catho Mind	144	O Kare	288	DLL XMI OFF FRAMES	1
Server	SOO ING CACHEMASSES	FIRE CROTIC MISSOS	FIG CUCHO MISSO	7,0	0114818	0/386	DLL TRANSITS	1
Garvar	Section Contraction Contractio	City Control of the Control	City Cache Liter	7	100000	- 8	1100.0 DELTA_TIME-DIL_THANSITS/(DLL_TRANSITS+DLL_	_
Conto	2000 Carrier and Street	THE COURS MISS NAME	Total Doctor	200	1 4 1 1 1 1 1	9	AMI OFF TRAMES	8 5
Server	Sourames	I catal Packets	I otal Packets	Z G	2 rrames	Ol/Sac	PACKETS, IN+PACKETS, UD1	
Contra	all a distance of the second	1100	olled Dead	Ş			(100.0'GOOD_POLLS/(GOOD_POLLS+MISSED_POLLS+BA	
10000	and poor	GOOD LONG	Sudd rolls		The contract of		The state of the s	1
Server	งนวาเพลากาย เพลากาย	Interrupts	Imerrupus	200	Uralle	Ol/SBC	I'M SIGNAL LOSS	ľ
Sarvar	305 largeCommBuffersUsed	Largo Comm Buffers Used	Lrge Com Buf Usd	167	5 Per Second	-	1	2
Server	305 latency	Latency	Latency	208	11 Milliseconds	1 (msec	LATENCY	1
		1					(100,0*MISSED_POLLS/(GOOD_POLLS+MISSED_POLLS+B	
Server	305 missedPolts	Missed Polls	Missed Polts	119	4 Percent	1%	AD_POLLS+REBOOTS))*DELTA_TIME	3
Sarver	305 page Faults	Page Faults	Pege Faults	146	5 Per Second	+	DLL ERRORS	
Server	305 pagesPagedin	Pages Paged in	Pages Paged In	136	5 Per Second	-	DLL_FRAMES	_
Server	305 pagesPagedOut	Pages Paged Out	Pages Peged Out	137	5 Per Second	-	DLL_MCASTS	
Server	305 pages Swapped In	Pages Swapped In	Pages Swd In	138	5 Per Second	-	DLL BCASTS	
Server	305 pagesSwappedOut	Pages Swepped Out	Pages Swd Out	139	5 Por Second	1	DLL, RCV, OFF, FRAMES	
Server	305 physical Memory Frae	Physical Memory Free	Phys Memory Free	599	7 Bytes	4 (bytes)		216
Saver	305 physical Memory Used	Physical Memory Used	Physical Memory	145	7 Bytos	4 (bytes)		
Server	305 physical Memory Utilizatio	tion Physical Memory Utilization	Physical Memory	ê	4 Porcent	*	100.0-DELTA_TIME-DIL_COLLISIONS/DIL_ENET_FRAMES	8 6
Sorver	305 processos	Processes	Processes	276	19 Size	4	TR, TOKEN	
	1	O control in the	Paschahilih	182	10 Total Time	(%)	(REACHABLE TIME 100,0'DELTA TIME/ITOTAL TIME'1.0))	26
Sarvar	SUSTREACHEDING	Rescreming	A STATE OF THE STA		200		MONORPHOOTS/GOOD POLLS+MISSED POLLS+BAD P	L
Capter	305 cohordes	Rehoofs	Reboots	121	4 Percent	78	OLLS+REBOOTS))*DELTA_TIME	8
Sontar	300 Supplied to 1	CPU Run Oueue Length	Run Queue Length	577	13 Gaugo	-	DLL_BYTES	
Server	Ę	Small Comm Buffers Dropped	Small Comm Buff	165	5 Per Second	-	TR INTERNAL	
Control	305 level am Calla	-	Syslem Cells	578	O'Rato	0/590	TR_LOST_FRAME	7
Server	305HotelBytes	Total Byles	Total Bytes	140	1 Bytes	0/280	BYTES_IN+BYTES_OUT	<u>"</u>
Saver	305ltotalCommFault	Total Comm Errors	Total Comm Error	163	5 Per Second	-	TR_FREQUENCY.TR_FRAME_COPIED	]
Saver	305 total Cou Utilization	Total CPU Ulilization	Total CPU UIII	597	4 Percent	4	TR_LLC_FRAMES	28
Server	305 total Frames Discarded	Total Frames Discarded	Til Frms Discard	128	2 Frames	38S/0	TR FRAME COPIED	1
Server	305 lotalincoming Bytes	Total Incoming Bytes	Total In Bytes	2	1 Bytes	0/880	BYTES_IN	1
Sarver	305 totalincoming Packets	Total Incoming Pkts	Total in Pkts	E	2 Frames	0/(800	PACKETS, IN	٩
Saver	305 total Large CommBuffers	Total Large Comm Buffers	Til Lrge Com Buf	166	5 Per Second	-	TR_ABORT	2 5
Sorver	305 tetal Outgoing Bytes	Total Outgoing Bytes	T8 Out Bytes	8	1 Bytes	0/860	BYTES OUT	318
Sarver	305 ledalOutaoina Packets	Total Outgoing Pkts	Til Out Pkts	2	2 Frames	oks/0	٦	1
Source	305 total Physical Momeny	Total Physical Memory	Total Phys Mem	144	7/Bytes	4 (bytes)	7	ľ
Sorver	305 total Virtual Memory	Total Virtual Memory	Total Vir Mem	149		4 (bytes	J	
Server	305 изеля	Users	Users	238	19 Size	4	T	,
Server	305 Mrtual Memory Free	Virtual Merrory Free	Virt Memory Free	8	7 Bytes	4 (0/183)	(IK LINE IK BUKSI)	
Sarver	305 virtualMemoryUsad	Virtual Memory Used	Vir Mem Used	120	/ Bytes	4 (0)/(85)	Т	
Sorver	305 virtualMemoryUtilization	Virtual Memory Utilization	Vert Mem Util		d Percent	2 5	TO BE STOCKNING	Ϊ
Server	306 activeConnections	Active Connections	Active Conn	10,0	40 Tatal Time	4 (9c)	VAVAII ARI E TIME 100 01	
Sorver	306 availability	Availability	Availability Ava Cot I I isi	9	A Parrent	*	DLL ALGN ERRORS	
Server	308 avgCpuUilization	Average CFU Conzacon	III CLORING		1 01001		(100.0°BAD_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD_	
	1000	100	Rad Poffs	120	4 Percent	-	POLLS+REBOOTS)) DELTA_TIME	
Sarver	306 badPoils	BEO FOUR	Dage					

lahel	Standard Standard	16-16-1			2 2 2 2			
Server	306 chulmhalanca	CPUImbalanca	CP1J Imbalance	150	1	units_type text	To set perovense	9 S
Server	306 droppedConnections	Dropped Connections	Dropped Conn	148	0 Rate	0/800	TR CONTENTION STREAMING	7 14
Sarvar	306 errors	Total Errors	Total Errors	289	2 Frames	O (Sec	TR FREOUENCY	242
Server	306 fleCacheAltempts	File Cache Attempts	Fle Cache Atts	143	0 Rate	0/800	DIL TRANSITS+DIL XMT OFF FRAMES	8
Server	306 fileCacheHits	File Cache Hits	Fie Cache Hits	141	0 Rate	Olker	DIT XMT DEF EPAMES	3 4
Server	306 fileCacheMisses	File Cache Misses	File Cache Missd	142	0 Rate	0 /890	DLL_TRANSITS	7
200	306		100				100.0°DELTA_TIME*DUL_TRANSITS/(DLL_TRANSITS*DUL_	L
Server	306 frames	Total Packets	Total Packets	198	2 Framos	8 - 0	KMT OFF FRAMES)	98
			200	5	101103	O /SBC	MACAGE SOLICIONS OUI	2
Server	306 goodPolls	Good Polls	Good Polls	118	4 Percent	***	(100.0 GOOD_POLLS/(GOOD_POLLS+MISSED_POLLS+BA D POLLS+REBOOTS)\**nFI TA TIMF	-6
Server	306 interrupts		Interrupts	580	0/Rate	0//860	TR SIGNAL LOSS	٤
Server	306 largeCommBuffersUsed	Large Comm Buffers Used	Lrge Com Buf Usd	167	5 Per Second	-	TR ADDRESS COPIED	2 5
Server	306 latency	Γ	Latency	208	11 Müliseconds	1 (msac)	LATENCY	3 2
Server	306 loadAveraga	CPU Load Average	Load Average	574	13 Gature	1	DIT BYTES	5 6
				-			1100.0 WISSED POLIS/GOOD POLISAMISSED POLISAB	1
Server	306 missedPolls	Missed Polls	Missed Polls	118	4 Percent	%	AD_POLLS+REBOOTS) DELTA_TIME	88
Server	306 pageFaults	Page Faults	Page Faults	146	5 Per Second	-	DILERRORS	2
Server	308 pageScanRate	Page Scan Rate	Page Scan Rate	578	0 Rate	os/o	TR CONGESTION	~
Server	306 pagesPagedIn	Pages Paged in	Pages Paged In	136	5 Per Second	-	DIL FRAMES	-
Server	306 pagesPagedOut	Pages Paged Out	Pages Paged Out	137	5 Per Second	-	DLL MCASTS	6
Server	306 pagesSwappedin	Pages Swapped In	Pages Swd in	138	5 Per Second	-	DIL BCASTS	٩
Server	306 pagesSwappedOut	Pages Swapped Out	Pages Swd Out	139	5 Per Second	-	DIL RCV OFF FRAMES	ĸ
Server	306 physicalMemoryFree	Physical Memory Free	Phys Memory Free	599	7 Bytes	4 (bytes)	(DLL ENET FRAMES DIL COLLISIONS)	216
Server	308 physicalMemoryUsed	Physical Memory Used	Physical Memory	145	7 Bytes	4 (bytes)	DLL_COLLISIONS	65
-				-		-:		
DA.BO	Sue prysicaliwemory Unitzation	7	Physical Memory	200		2	100.0*DELTA_TIME*DIL_COLLISIONS/DIL_ENET_FRAMES	8
Server	30b processes	Processes	Processes	96	19 Size	4	TR. TOKEN	23
Server	306 reachability	Reachability	Reachability	182	10 Total Time	1(%)	(REACHABLE TIME"100,0"DELTA TIME(TOTAL TIME"1.0))	76
							(100.0*REBOOTS/(GOOD_POLLS+MISSED_POLLS+BAD_P	
Server	306 reboots	_	Reboots	121	4 Percent	4%	OLLS+REBOOTS))*DELTA_TIME	8
Server	306 smallCommBuffersDropped		Small Comm Buff	165	5 Per Second	-	TR_INTERNAL	<b>=</b>
Server	306 systemCalls	System Calls	System Calls	579	O Rate	0 /sec	TR_LOST_FRAME	22
Server	306 lotafBytes	Total Byles	Total Bytes	140	1 Bytes	0 /sec	BYTES_IN+BYTES_OUT	88
Server	306 totalCommFault	Total Comm Errors	Total Comm Error	163	5 Per Second	-	TR_FREQUENCY-TR_FRAME_COPTED	6
Sarver	306 totalCputhilization	Total CPU Utilization	Total CPU Util	297	4 Percent	8	TR LLC FRAMES	٤,
UBING	306 totall ramest listanded	Total Frames Cascarded	Total in Bides	2 2	4 Distant	0,780	IR FRAME COPIED	श
Sarver	308 Intelleranded Deckete	Total Ingenia Dite	Total in Dide	2 5	2 Frames	Olean	PACKETS IN	315
2000	205 John Paris Services	Total I ama Comm Buffare	Tit I roa Com Buf	166	5 Per Second	7	TE ABOUT	ę
Server	306 IntalOutrainaBytes	Total Outcoing Byles	Til Oul Byles	8	1 Byles	0/890	BYTES OUT	8
Server	306 totalOutgoingPackets	Total Outgoing Pkis	Til Out Pids	52	2 Frames	0 /380	PACKETS OUT	23
Server	306 total Physical Memory	Total Physical Memory	Total Phys Mem	144	7 Bytes	4 (bytes)	DIL ENET FRAMES	80
Server	306 total Virtual Memory	Total Virtual Memory	Total Vir Mem	148		4 (bytes)	I'R, UNE	۳
Server	306 users	Users	Users	288	19 Size	4	TR_BIT_STREAMING	4
Server	306 virtualMemoryFree	Virtual Memory Free	Virt Memory Free	800	/ Byles	4 (bytes)	(TR_LINE-TR_BURST)	2
Server	306 VirtualMemoryUsed	Virtual Mentory Used	Vir Mem Used	150	7 Bykes	4 (bytes)	TR BURST	2 8
Server	306 virtualMemoryUtilization	Virtual Mamory Utilization	Virt Mem Util	192	4 Percent	200	100.0-DELTA TIME TR BURST/TH LINE	3 5
Sarver CPU	330 availability	Availability	Availability	<u> </u>	TO COM LINE	(%)	(AVAILABLE TIME TUGO)	T
Server CPU	330 badPoils	Bed Polls	Bad Polls	120	4 Percent	- 2	(100.0°BAU_POLLS(GOOD_POLLS+MISSEU_POLLS+BAU_  POLLS+REBOOTS) *DELTA_TIME	- 29
Server CPU	330 cputdfeUtilization	CPU Idle Utilization	CPU Idle Util	572	4 Percent	1 %	BYTES IN	28
Server CPU	330 cpuSystemUtilization	CPU System Utilization	CPU System Util	583	4 Percent	%	TR_LLC_FRAMES	56
Server CPU	330 cpuUserUilization	CPU User Utilization	CPU User Util	282	4 Percent	%	TR FRAME COPIED	5 5
Server CPU	330 epuUtilization	CPU Utilization	CPU Utilization		4 Percent	28	ITR_FREQUENCY	3 5
Server CPU	330 opuWaltUtifization	CPU Wait Utilization	CPU Wait Util	<u> </u>	4 Percent	8	MACKETS IN	1
	000	alto book	Good Poils	<del>2</del>	4 Percent	*	(100.0°GCOO_POLLS(GCOO_POLLS+MISSED_POLLS+SA D POLLS+REBOOTS))'DELTA TIME	22
Server CFU	Soulgoodroils	GOOD L'OIS						

[a40]		10.00	1000					[
Server CPU	330 latency	Latency	Latency	208 11 Millis	econds	umits type text	Col_expression	6 6
Server CPU	330 missedPolts	Missed Polis	Missed Polis	119	4 Percent	*	SSED_POLLS/(GOOD_POLL3+MISSED_POLL5+B S+REBOOTS)/*DELTA_TIME	88
G Server CPU	330 reachability	Readrability	Reachability	182	10 Total Time	(%)	(REACHABLE TIME 100.0 DELTA TIME/TOTAL TIME 1.0))	76
Server CPU	330 rebaats	Rebools	Reboots	121	4 Percent	*	(100.0'REBOOTS/(GOOD_POLLS+MISSED_POLLS+BAD_P	L
	350 availability	Availability	Availability	181	10 Total Time	1 (%)	(AVAILABLE_TIME*100.0)	E
User Partition	350 badPolis	Bad Polls	Bad Polfs	120	4 Percent	- %	(100.0°9AD_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD_ POLLS+REPOTS)1°0FLTA_TIME	8
	350 acodPoils	Good Polls	Good Poils	118	4 Perrennt	7	(100.0°GOOD_POLLS/(GOOD_POLLS+MISSED_POLLS+BA	6
User Partition	350 inodeUtilization	Incde Utilization	Inode Uill	581	4 Percent	3 7	DIL FRAMES	
User Partition	350 Intoncy	Latency	Latoncy	208	11 Miliseconds	1 (msec)	LATENCY	81
User Perlition	350 missedPalis	Missed Polls	Missed Polls	119	4 Percent	***	(100.0-MISSED_POLLS/(GOOD_POLLS+MISSED_POLLS+B	89
User Pertition	350 partitionAltocationFe	П	Part Alloc Falls	157	5 Per Second	-	PACKETS IN	27
User Partition	350 partitionReads		Parl Reads	154	0 Rate	0 /390	BYTES_IN	28
User Partition	350 PartitionReadsWrite	_	Part Reads&Wrts	156	0 Rate	0 /860	BYTES_OUT	30
User Partition	350 partitionStorageCep	sacity Partition Storage Capacity	Part Stor Cap	152	7 Bytes	4 (bytes)	TR_FREQUENCY	24
User Partition	350 partitionStorage+fee	1	Part Stor Free	124	7 Bytes	4 (bytes)	TR FREGUENCY-TR FRAME COPIED)	218
		_				and a		
User Partition	350 partitionUtilization	Partition Utilization	Part Util	153	4 Percent	28	100,0"DELTA_TIME"TR_FRAME_COPIED/TR_FREQUENCY	62
User Partition	350 partitionWrites	· Partition Writes	Part Writes	155	G Rete	0/890	PACKETS_CUT	29
User Partition	350 reachability	Reachability	Reachability	182	10 Total Time	1(%)	(REACHABLE_TIME"100.0"DELTA_TIME/(TOTAL_TIME"1.0))	76
User Partition	350 rebrete	Bahanie	Retnote	121	d Percent	7	(100.0*REBOOTS/(GOOD_POLLS+MISSED_POLLS+BAD_P	
M BMC NT Partition	352 availability	Availability	Availability	181	10 Total Time	1 (%)	(AVAILABLE TIME*100.0)	£
	. 352 badPolts	Bad Potts	Bad Polls	120	4 Percent	*	(100.0°BAD_POLLS(GOOD_POLLS+MISSED_POLLS+BAD_ POLLS+REBOOTS)}*DELTA_TIME	59
BMC NT Partition	352 appelpalls	Good Polis	Good Polls	148	4 Percent	*	(100.0°GOOD_POLLS/(GOOD_POLLS+MISSED_POLLS+BA D_POLLS+REBOOTS))*DELTA_TIME	57
BMC NT Partition	352 latency	Latency	Latency	208	11 Millseconds	1 (msec)	LATENCY	81
BMC NT Codillon	252 Polymorphis	Miscood Dolls	Missed Polls	19	4 Percent	*	((100.0*MISSED_POLLS/(GOOD_POLLS+MISSED_POLLS+B	58
BMC NT Partition	352 partitionStorage Cen	2	Part Stor Cap	152	7 Bytes	4 (bytes)	TR_FREQUENCY	24
BMC NT Partition	352 partitionStorageUsed	d Pertition Storage Used	Part Stor Used	151	7 Bytes	4 (bytes)	TR FRAME COPIED	\$2
BMC NT Partition	352 partition-Utilization	Partition Utilization	Part Util	153	4 Percent	1 %	100.0"DELTA, TIME"TR, FRAME, COPIED/TR, FREQUENCY	62
BMC NT Partition	352 reachability	Reachability	Reachability	182	10 Total Time	1 (%)	(REACHABLE_TIME*100.0*DELTA_TIME/[TOTAL_TIME*1.0])	76
O THE CONTRACT	183	O crtea	Reboots	121	4 Percent	*	(100.0*REBOOTS/(GOOD_POLLS*MISSED_POLLS*BAD_P	8
BUC LINIX Portition	353 availability	Availability	Availability	181	10 Total Time	1(%)	(AVAILABLE_TIME*100.0)	11
BMC UNIX Partition	353 barl Polls	Bad Polls	Bad Polls	120	4 Percent	%	(100.0°BAD_POLLS(GOOD_POLLS+MISSED_POLLS+BAD_ POLLS+REBOOTS))*DELTA_TIME	58
OWN Dedition	15. 19.3	Speed Polls	Good Palls	118	4 Percent	- 32	(160.0°G000_P0LLS/MISSED_P0LLS+BA  D_P0LLS+REB0OTS) *DELTA_TIME	57
BMC UNIX Partition	353 latency	Latancy	Latoncy	208	11 Millseconds	1 (msec)	LATENCY	8
BMC LINIX Padition	353 missadPolls		Missed Polls	119	4 Percent	*	(100.0*MISSED_POLLS/(QOOD_POLLS+MISSED_POLLS+B AD_POLLS+REBOOTS))*DELTA_TIME	88
BMC UNIX Portition	353 partitionStorageCap	2	Part Stor Cap	152	7/Bytes	4 (bytes)	TR_FREQUENCY	24
BMC UNIX Partition	353 partitionStorageUsed	П	Part Stor Used	151	7 Bytes	4 (bytes)	TR FRAME COPIED	28
BMC UNIX Partition	353 partitionJulization	Partition Utilization	Part Util	153	4 Percont	*	100.0"DELTA, TIME"TR, FRAME, COPIEDITR, FREGUENCY	62
ONLY DOUBLE	All Marketon	Reachability	Reachability	182	10 Total Time	1 (%)	(REACHABLE_TIME*100.0*DELTA_TIME/TOTAL_TIME*1.0))	76
Supplemental Composition								

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BMC UNIX Partition			200	-			ומוווא נאמפ ומאו		3
BMC UNIX Partition	-			1	į			SI(GOOD_POLLS+MISSED_POLLS+BAD_P	5
	353 reboots		Reboots	Availability	181	10 Total Time	(%)	(AVALABLE TIME-100.0)	318
A	Concession of the concession o							(100.0'BAD_POLLS(GOOD_POLLS+MISSED_POLLS+BAD_	
日日	370 badPolts		Bad Polls	Bad Polls	2	4 Percent	- 8	POLLS+REBOOTS), DELTA TIME	8
N C	370 diskavg rar	nstersize	Average Iransier Size	Avg Aver Size	1	1 5765	Olysec	AGOS OPELIA TRACTIL MARCHES DO	200
\$ 5 D	370 diskbassyllans	ווצופנ ו ננוופ	Diek IX Brev Hillyston	Diek Ritev Time	3	AParont		100 COLL MORETS	3
T Disk	370 diskBytesTransferred	ansferred	Bytes Transferred	Bytes Xferd	É	1 Bytes	0//880	DIL BYTES	ľ
<u>5</u>	370 diskFaults		Disk Faults	Disk Faults	135	5 Per Second	-	PACKETS IN	12
DISK	370 diskQueueLength	ength	Disk I/O Queue Length	Disk Q Length	568	0 Rate	0/sec	DLL BCASTS	۳
Disk	370 diskReads		Disk Reads	Disk Reads	132	0 Rate	0/sec	BYTES IN	88
Disk	370 diskReadsWrites	Vrites	Disk Reads&Writes	Disk Read&Write	434	0 Rate		BYTES OUT	R
Disk	370 diskStorage	Capadiy	Disk Storage Capacity	Disk Stor Cap	130	7 Bytes	4 (bytes)	TR FREQUENCY	72
Disk	370 diskStorageFree	Free	Storage Free	Storage Free	709	7 Bytes	4 (byles)	TR_FRECUENCY-TR_FRAME_COPIED	9
Oisk	370 diskStorageUsed	Used	Storage Used	Storage Used	710	7 Bytes	4 (bytes)	TR_FRAME_COPIED	25
					-	!			1
<b>1</b>	3/UdskS(drageUnitzaudn	OUNTERNO	Disk Storage Utilization	Disk Meiter	2 5	4 Percent	ş (	100.0-DELTA TIME-TR FRAME COPIED/IN FREQUENCY	3 5
Ž	3/U DESKWINGS		USK Writes	DISK WATER	25	Urkate	DBS/In	PACKEIS UUI	3
- E	a7n/apparluze		allod boots	Good Polls	1	4 Percent	***	(100.0°GOOD_POLLS(GOOD_POLLS+MISSED_POLLS+BA	Ğ
OS	370 latency		Latency	Latency	208	11 Miliseconds	1 (msec)	LATENCY	6
								(100,0"MISSED_POLLS/(GOOD_POLLS+MISSED_POLLS+B	
DIS\$	370 missedPolls		Missed Polts	Missed Polis	139	4 Percent	2,8	AD POLLS+REBOOTS))*DELTA_TIME	23
- T	370 September 175		Searchaphility.	Reachability	182	40 Total Time	1/40	(REACHABLE TIME-101) 0:DELTA TIME((TOTAL TIME-1.0))	76
Sec.	מו מ		(Monday)					(100.0*REBOOTS/(GOOD POLLS+MISSED_POLLS+BAD_P	
Dist	370 reboots	ļ	Reboots	Reboots	121	4 Percent	1 1%	OLLS+REBOOTS))*DELTA_TIME	8
Disk	371 availability		Avaitability	Availability	181	10 Total Time	4 (%)	(AVAILABLE_TIME*100.0)	=
ī	i			· · · · · · · · · · · · · · · · · · ·	ţ	AlDerect	3	(100.0*BAD_POLLS/GOOD_POLLS+MISSED_POLLS+BAD_	ů.
CISK .	3/1 Dadroils	1400	Dick Deads Writing	Dick Read Wille	2	OPata	O /sac	BYTES OUT	R
UNSK	AVI DISKREADSIV	vnres	USA NEGUSAYIIIGS	O Union				(100.0°GOOD POLLS//GOOD POLLS+MISSED POLLS+BA	
: ************************************	371 good Polls		Good Polls	Good Polls	118	4 Percent	2	D_POLLS*REBOOTS]  PELTA_TIME	53
Disk	371 latency		Latency	Latency	g Z	11 Milliseconds	1 (msec)	LATENCY	6
ŧ	374 missadDolls	-	Missed Polis	Missed Polls	138	4 Percent	<u>+</u>	(100.0*MISSED_POLLS*MISSED_POLLS*B AD_POLLS*REBOOTS))*DELTA_TIME	88
Clar	CIIO LIDOGETILI TO		200 10000						;
<del>- 1</del>	371 reachability		Reachability	Reachability	<u>a</u>	10 Total Time	4(%)	(REACHABLE_TIME*100.0*DELTA_TIME/(TOTAL_TIME*1.0))	9
					Ş	- P	- 3	(100.0'REBOOTS/(GOOD_POLLS+MISSED_POLLS+BAD_P	9
ASIO C	371 reboots		Repools	Availability	9 5	10 Total Time	1(%)	(AVAILABLE TIME 100.0)	11
Server LAN	SOC availability	98	Average Frame Size	Ava Frame Size	8	7 Bytes	4 (bytes)	DELTA TIME TR TOKENTR LOST FRAME	픐
Server I AN	502 aveFrameSizeIn	zelo	Average Frame Size tn	Avg Frame Sz In	701	7 Bytes	4 (bytes)	DELTA_TIME:DLL_BYTES/DLL_FRAMES	33
			1	0 0		- 6	/ / / / / / / / / / / / / / / / / / /	DELTA_TIME (TR_TOKEN-DIL_BYTES) (IR_LOST_FRAME)	306
Server LAN	502 avgrrameSizeOu	zeOut	Average Frame Size Cur	AVI TIRING SE OUC		283	Godell	(100.0'8AD_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD_	
No contract	S(T2) bad Polla		Bad Polls	Bad Polls	120	4 Percent	1%	POLLS+REBOOTS))*DELTA_TIME	2
Server ( AN	502 bandwidth		Bandwidth Utilization	BW UIB	209	4 Percent	1%	((TR_TOKEN'8"100.0)/5(speed))	à
Server LAN	502 bandwidthfn		Bendwidth Utilization in	BW Usi th	210	4 Percent	%	((OIL BYTES'8'100.0)/\$(speedin))	श
Server LAN	502 bandwidthOt	ut	Bandwidth Utilization Out	BW Uil Out	21	4 Percent	8	((TR_TOKEN-DIL_BYTES)'8"100.UJA(speedout))	g g
Server LAN	502 bits		Bits	GB(s	5		3es/In	(IK IONEN 8.0)	Ę
Server LAN	502 bitstn		Bits in	Bits in	88 E	15 Bits	203/0	(OUL BY 1ES'8.0)	99
ServerLAN	502 bilsOut		Bits Out	Bits Out	25.	15 Edits	0/880	TR TOKEN	2
Server LAN	502 bytes		Bytes	Bytes Rytes In	*=	1 Bytes	Olysec 0	DIT BYTES	7
Server LAN	502 bytesin		Bytes In	Portes Out	200	1/Byles	00/0	(TR TOKEN-DIL BYTES)	74
Server LAN	502 bytesOut		Bytes Cut	Dyles voi	1		_	100.0 DELTA_TIME DIL_RCY_OFF_FRAMES/(TR_LOST_F	
Secretary 6M	502 collisions Dulber	ĝ	Collisions (out) %	Collisions Out %	720	4 Percent	1%	RAME-DIL FRAMES)	33
Server LAN	announce of the second	5							

					ŀ				
label	elament type symbol	symbol	label	short label		units id Tabel	units typo text		2 E
Server LAN	2005	discarded rames	Discarged Framos	Discarded Frames	200	2 Frantis	O/sec	03	9
Screen AN	202	discardain	Unscards in	Discords in	180	4 Person	00%	OUT COLLISIONS	٦
Secure 1 AN	200	502 discardaning	Discords (17 %	Discorde Out	407	2 France	e 000	TOO DELIA TIME OLL COLLISIONS IN TRAMES	5 6
p		1000000	100 00000		-			100.0 DELTA_TIME (TR_FRAME_COPIED-	T
Server LAN	502	502 discardsOutPct	Discards Out %	Discards Out %	531	4 Percent	28	DLL_COLLISIONS//TR_LOST_FRAME-DLL_FRAMES)	Ē
S Grver LAN	2005	errors	Errors	ETOL		21-rames	2897	IR FREQUENCY	S)
Sorver Lan	202	erosin	Errors In	Errors In	213	2 Frames	0/860	DLL_ERRORS	2
Staver LAN	200	erroreinPck	Errors In %	Errona in %	230	4 Percent	8	100.0 DELTA TIME DLL ERRORS/DLL FRAMES	192
Non-Maria	202	SUZI errorsOut	Errors Out	Emora Out	212	2 Frames	0/890	TR FREQUENCY-DLL ERRORS	8
Server LAN	503	502 armis Output	Ermra Out &	A trop of the	432	Ontrant	;	100.0 DELTA_TIME*(TR_FREQUENCY-	į
Server LAN	502	502 frames	Frames	Frames	1	2 Framos	02070	TO LOCATION TO STANDED LANGUES	Z E
Server LAN	502	(ramesin -	Frames in	Frames by	78	2) Framos	Diano.	Di EDANGE	1
Server LAN	502	502 framasOut	Frames Out	Frames Out	29	2 Frames	200/00	ITO LOST EDANG. DIT EDANES	9
							200/2	(100 0'5000 POLIS/GOOD POLIS+MISSEO POLIS+HA	3
Server LAN	505	502 goodPolis	Good Poils	Good Polis	118	4 Percent	**	D POLLS+REBOOTS)/DELTA_TIME	19
Server LAN	205	502 latency	Latency	Latency	208	11 Mill/seconds	1 (msec)	LATENCY	8
					-			(100.0*MISSED_POLLS/(GOOD_POLLS+MISSED_POLLS+B	
Server LAN	502	502 missedPolls	Missed Polls	Missed Polis	118	4 Percent	1 %	AD_POLLS+REBOOTS))*DELTA_TIME	8
Server LAN	502	nonUnicast	Nonunicasi	Nonunicast	26	2 Frames	00/880	DIL BCASTS	4
Server LAN	202	nonUnicastin	Nonunicast in	Nonunicast in	198	2 Frames	0/890	DIL_MCASTS	3
Server LAN	903	nonUnicastOut	Nonunicast Out	Nenunicast Out	199	2 Frames	0/890	(DLL, BCASTS-DLL, MCASTS)	₹
Samerian	-	CO2 monthshillte	Doochability	Doorhohille	482	tolat Time	120	(0 PENET INTOTIONE AT 1800 000 SANT 3 INCOMPANY	- #
	700	reactionity.	Naecianii)	Coordination	y <sub>2</sub>	all leids	K	ACACHABLE IIME 100.0 DECIM IIME(1012. IIME 1.3)	1
SavortAN	502	502 reboots	Reboots	Rebools	127	4 Percent	*	CHOS. REBOOLS (GOOD FOLLS MISSED FOLLS FOLLS FOLLS FOLLS FOR SAREBOOLS)	8
Sorvar LAN	502	unknownProtocolPackets	Unknown Protocol Pkts	Unka Proto Pids	100	2 Frames	0/396	TRINE	9
Sorver LAN	504	eveilability	Availability	Availability	181	10 Total Time	- 28	(AVAILABLE TIME-100.0)	11
Server LAN	204	504 avaPrameSize	Average Frame Size	Avg Frame Size	700	7 Byles	4 (bytes)	DELTA TIME TR TOKENTR LOST FRAME	311
Server LAN	204	avgFrameSizeIn	Average Frame Size in	Avg Framo Sz In	701	7 Bytes	4 (bytee)	DELTA TIME DIL BYTES/DIL FRAMES	310
					9.5	i i		DELTA_TIME (TR_TOKEN-DIL_BYTES)/(TR_LOST_FRAME	٤
Server LAN	204	504 avgFrameSizeOut	Average Frame Size Cut	Avg reams 52 Cur	7007	( Dyles	4 (0)(63)	OLL PRAMES)	3
No Londo	209	hodbelle	Podle	Bad Polls	120	4 Percent	***	POLLS+REBOOTSIVEELY TIME	ĝ
Server LAN	504	504 handwidth	Bandwidth Hillzation	BW Uil	509	4 Percent	8	I(TR TOKEN'8'100.0)/\$(speedTotal))	22
Server LAN	504	bandwidthin	Bandwidth Utilization in	BW Util In	210	4 Percent	26	((OLL_BYTES*8*100.0)/\$(cpoodin))	78
Server LAN	204	504 bandwidthOut	Bandwidth Utilization Out	BW Uil Out	211	4 Percent	1 %	(((TR_TOKEN-DLL_BYTES)*8*100.0)/5(spaedOut))	8
Spruer LAN	504	alia.	Cits	Bits	437		000/0	(TR, TOKEN'8.0)	9
Server LAN	Š	504 thsh	Pin In	Rit to	438		0/890	(OLL_BYTES*8.0)	99
Server LAN	Š	SOURTHOOM	No indi	Bits Out	ş	15 Bits	0/100	I(TR TOKEN-DIL BYTES)'8.0)	3 2
Server LAN	ŝ	1 7 2 2	19.3	By'es	2	18768	Ursec	IN IONEN	310
Server LAN	3	Sidirock	-	500	۶	- Dyes	000/0	I'M TOKENDI BYTESI	74
Server LAN	3	2	3	22.0				1100 0 DELTA TIME DIL RCV OFF FRAMES/(TR_LOST_F	
October 1 AN	-			Crandings O. A. S.	£	L Percont	*	RAME-DIL FRAMES)	327
Server I AN		100	To go dead a speried	Chicarled Proven	57	2 frames	0/390	TR_FRAME_COPIED	25
SomeriAN	Š		() eces	Chrark in	1961	2Frames	0/890	DIT COLLISIONS	6
Sorver I AN	5	La Bagan	Oscarda in Sa	Discards In %	625	4 Percent	1 1%	100.0 DELTA_TIME OLL_COLLISIONS/DLL_FRAMES	
Sarur I AN	9	And the article	December On	Discourts Out	197	2 Frames	0/890	(TR. FRAME, COPIED-DLL, COLLISIONS)	8
					76.3	100000		100.0'DELTA_TIME'(TR_FRAME_COPIED-	6
Server LAN	ğ	decerded of the	Discords Out 16	Carolin Out N	2	2 Frames	O Aspec	TR FREDIENCY	24
Sorver LAN	Š	emone	l-mort	Emore in	212	2 Frames	O Web	DIL ERRORS	₽
Server LAN	Š.	504 errorsin	Cross in 6.	Frank In %	88	4 Percent	28	100.0 DELTA_TIME DIL_ERRORS/DIL_FRAMES	182
Server LAN	504	omorphy C.	From Out	Errors Out	212		Des/D	TR FREQUENCY OUL ERRORS	8
Server Cen	And the second	allocacin.			-		- 6	100.0.0ELTA_TIME (TR_FREQUENCY-	194
Server LAN	204	504 arrorsOutPct	Errora Out %	Emors Out %	225	4 Percent	4 C	TE LOST FRAME	22
Server LAN	38	504 frames	Fremas	Frames		zirrames	Aliason Aliason		

Control					Section Section	Acres 6ed beaution		traffic fund flext		3
Part List		element_type	symbol	label Grames la	Snort laber	28 ro	2	0//590		-
Part LAI   SQ   Quedicida   Good Pub   Good Pub   Title   Glaveria   Title   Glaveria   Title   Good Pub   Title   Title		1	framesoni	Frames Out	Frames Out	29	2 Frames	oes/ o	(TR_LOST_FRAME-DLL_FRAMES)	8
Part LAN   Soli plancy   Good Polis   Good		ñ	In Occupation	100 0000					(100.0°GOOD_POLLS/(GOOD_POLLS+MISSED_POLLS+BA	1
State VA         Gold Selectory         Latery         <	Servertan	50	goodPalls	Good Polls	Good Polis	=		%	D POLLS+REBOOTS))*DELTA TIME	à
Part   Marco   Continues   C	Server LAN	504	latency	Latency	Latency	8	41 Milliseconds	1 (msac)	LATENCY	-
Part   Manual	De.				Afternood Boulin	ţ		***	(100.0 MISSEL, FOLLS/(GOOD, FOLLS-MISSEL, FOLKS-S	80
Spinor LAM         Style LAM         Style LAM         Style LAM         Other           Spinor LAM         Style LAM         Style LAM         Reconstitution         Reconstitution <t< td=""><td>Maria AN</td><td>200</td><td>mssed-olls</td><td>Missed Polis</td><td>Nominicaet</td><td>28</td><td>2) Frames</td><td>O //sec</td><td>DI BCASTS</td><td>7</td></t<>	Maria AN	200	mssed-olls	Missed Polis	Nominicaet	28	2) Frames	O //sec	DI BCASTS	7
Part   Manufact   Ma	MAC TAN	705	nontineasth	Normicastin	Nonumbast In	198	2 Frames	0 /880	DLL MCASTS	6
Server LAN         SG (aboutility         Reachability         Reachability         Reachability         Reachability         Reachability         Reachability         Reachability         Reachability         150         1	Server LAN	204	nonUnicasiOut	Norunicast Out	Nonunicast Out	499	2 Frames	0 /sec	(OLL_BCASTS-DLL_MCASTS)	84
Secure LAN         Stort (Mode)         Record LAN         Cold (Mode)         Fig. 10         Cold (Mode)         Cold (Mode) <t< td=""><td>Senarian</td><td>207</td><td>roarhabille.</td><td>Reachability</td><td>Reachability</td><td>182</td><td>10 Total Time</td><td>176</td><td>(REACHABLE TIME: 10) 0:DELTA TIME/TOTAL TIME: 10)</td><td>192</td></t<>	Senarian	207	roarhabille.	Reachability	Reachability	182	10 Total Time	176	(REACHABLE TIME: 10) 0:DELTA TIME/TOTAL TIME: 10)	192
Storement			ונפסרוומחוווו	Necesianis	Tunnan I				MOOGREBOOTSMOOD POLLS+MISSED POLLS+BAD P	
Stormer LAM         SST (Windstrand Protocol Pack) b. Unknown Princip Pits         100 Princip Pits </td <td>Server LAN</td> <td>504</td> <td>reboots</td> <td>Reboots</td> <td>Reboots</td> <td>121</td> <td>4 Percent</td> <td>*</td> <td>OLLS+REBOOTS))*DELTA_TIME</td> <td>9</td>	Server LAN	504	reboots	Reboots	Reboots	121	4 Percent	*	OLLS+REBOOTS))*DELTA_TIME	9
Server WAN         Gold geffermestine         Average Ferme Step         Average Step <td>Server LAN</td> <td>204</td> <td>unknownProtocolPackets</td> <td>Unknown Protocol Pkts</td> <td>Unkn Proto Pkts</td> <td>104</td> <td>2 Frames</td> <td>0/890</td> <td>TRLINE</td> <td>9</td>	Server LAN	204	unknownProtocolPackets	Unknown Protocol Pkts	Unkn Proto Pkts	104	2 Frames	0/890	TRLINE	9
Server WAN         GOID GATFTENESSISS         Amazga Frame Size b         Amy Frame Size b         And Frame Size b </td <td>Server WAN</td> <td>009</td> <td>availability</td> <td>Availability</td> <td>Availability</td> <td><u>\$</u></td> <td>10 Total Time</td> <td>1(%)</td> <td>(AVAILABLE_TIME*100.0)</td> <td>F</td>	Server WAN	009	availability	Availability	Availability	<u>\$</u>	10 Total Time	1(%)	(AVAILABLE_TIME*100.0)	F
Second WAN         600 degradation         Average Frame Size on Average	Server WAN	9	avgFrameSize	Average Frame Size	Avg Frame Size	200	/ loytes	4 (bytes)	DELTA TIMETR TOKENTR LOST FRAME	5
Server WAN         GOD Bardwichten         Fair Polis         Average Frame Sto Out         Average Frame Sto Out         Total Polis         Total Polis         Total Polis         Approximate Appro	Server WAN	g .	avgirramesizem	Average Frame Size in	Avg rramo oz un	5	/ byws	4 (0)(88)	DELTA TIME OF TOKEN DIL BYTES)/(TR_LOST_FRAME)	2
Server WAN         GOO Jack-Olds         Bad Pouls         120         4 Percent         1 %           Server WAN         GOO Jack-Olds         Bad Pouls         Bad Pouls         120         4 Percent         1 %           Server WAN         GOO Jack-Olds         Barchwich Utilization in Server WAN         Barchwich Utilization of Server WAN         Barchwich Utilization of Server WAN         Barchwich Utilization of Server WAN         GOO Jack Olds         Barchwich Utilization of Server WAN         APP Percent         1 %           Server WAN         GOO Jose Olds         Bits in Server WAN         GOO Jose Olds         Bits in Server WAN         APP Percent	Server WAN	600	avgFrameSizeOut	Average Frame Size Out	Avg Frame Sz Out	702	7 Bytes	4 (bytes)	DU_FRAMES)	98
Specie WAN         Still Stocketh         Bernweldth Uilliseton in Sev Uilling Control         Bev Uilling 210         4 Percent         1 % Sep Sever WAN           Specie WAN         GOD Sendwichthout Bernweldth Uilliseton in Sev Uilling Control         Bev Uilling 2011         4 Percent         1 % Sep Sever WAN           Specie WAN         GOD Sendwichthout Bernweldth Uilliseton Out Sep Sever WAN         Bibs in Control WAN         4 Percent         1 % Sep Sever WAN           Specie WAN         GOD Sep Sep Sever WAN         GOD Sep Sep Sever WAN         GOD Sep Sep Sever WAN         Bibs in Control WAN         GOD Sep Sep Sever WAN         GOD Sep	Server WAN	9	hadPolls	Bad Poils	Bad Polls	120	4 Percent	35	(100.0*BAD_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD_ POLLS+REBOOTS)*DELTA_TIME	8
Server WAM         GOID (Bandwidth)In         Bandwidth Utilization On         BMV UIL Dot         210         4 Percent         1 %           Server WAM         GOID (Bandwidth)Au         Bits Out         231         4 Percent         1 %           Server WAM         GOID (bits)         Bits Out         439         1 6 Bits         0 // bits           Server WAM         GOID (bits)         Bits Out         818 bit         439         1 6 Bits         0 // bits           Server WAM         GOID (bits)         Bits Out         818 bits         9 // bits         1 6 // bits         0 // bits           Server WAM         GOID (bits)         Bits Out         818 bits         9 // bits         1 6 // bits         1 6 // bits           Server WAM         GOID (bits)         Bits Out         1 6 // bits         1 6 // bits         1 6 // bits         1 6 // bits           Server WAM         GOID (bits)         Bits Out         1 6 // bits         1 6 // bits         1 6 // bits         1 6 // bits           Server WAM         GOID (bits)         Bits Out         1 6 // bits         1 6 // bits         1 6 // bits         1 6 // bits           Server WAM         GOID (bits)         Bits         Discarded Polity         Errors Out %         1 6 // bits	Server WAN	009	bandwidth	Bandwidth Utilization	BW UI	209	4 Percent	1%	((TR_TOKEN*8*100.0)/\$(speedTotal))	R
Server WAH         GOID (bits)         Bits in Bits i	Server WAN	009	bandwidthin	Bandwidth Utilization In	BW Util In	210	4 Percent	- % - ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	((DLL_BYTES'8*100.0)/\$(speedin))	2
Server WAN         GOID/HIST         Bits         Bits         427         15 Bits         0 Rec           Server WAN         GOID/HIST         Bits         A 128         15 Bits         0 Rec           Server WAN         GOID/HIST         Bits Out         423         15 Bits         0 Rec           Server WAN         GOID STATE         Bits Out         428         15 Bits         0 Rec           Server WAN         GOID STATE         Bits In         Bits Out         428         15 Bits         0 Rec           Server WAN         GOID STATE         Bits In         Bits Out         1 Bits         0 Rec         0 Rec           Server WAN         GOID STATE         Bits In         Bits Out         1 Bits         0 Rec         0 Rec           Server WAN         GOID GLEAT GOLD CHART         Discarded Fames         Discarded Fames         Discarded Fames         0 Rec         1 Rec         1 Rec           Server WAN         GOID GLEAT GOLD CHART         COID GLEAT GOLD CHART         DISCARDED CHART <td>Server WAN</td> <td>9</td> <td>bandwidthOut</td> <td>Bandwidth Utilization Out</td> <td>BW Uill Out</td> <td>211</td> <td>4 Percent</td> <td>÷</td> <td>(((TR_TOKEN-DLL_BYTES)*8*100.0)\$(speedOut))</td> <td></td>	Server WAN	9	bandwidthOut	Bandwidth Utilization Out	BW Uill Out	211	4 Percent	÷	(((TR_TOKEN-DLL_BYTES)*8*100.0)\$(speedOut))	
Server WAN         GOD blitch         Bits In         Bits In         438 is is in         15 Bits         Office           Server WAN         GOD blitch         Bytes         Bytes         2         1 Bytes         Office           Server WAN         GOD brash         Bytes         1         1         Bytes         Office           Server WAN         GOD brash         Bytes Out         2         1 Bytes         Office           Server WAN         GOD brash         Bytes Out         2         1 Bytes         Office           Server WAN         GOD descritch         Bytes Out         2         1 Bytes         Office           Server WAN         GOD descritch         Bytes Out         Discritch in         52         2 Ferrers         Office           Server WAN         GOD descritch         Discritch in %         Discritch in %         52         2 Ferrers         Office           Server WAN         GOD descritch         Error Dut         Error Out %         531         A Ferrers         Office           Server WAN         GOD descritch         Error Out %         531         A Ferrers         Office           Server WAN         GOD derocal Cout %         Error Out %         532         A Ferrer	Server WAN	900	hits	Bits	Bils	437	15 Bits	0/890	(TR_TOKEN'8.0)	5 5
Server WAN         GOD Protein         Bits Out         Bits Out         Act of the Color	Server WAN	900	bitsin	Bits in	Bits in	438	15 Bits	0 /860	(OLL_BYTES-8.0)	3 9
Server WAN         GOID Options         Bytes         9yes         1 Hytes         1 Hytes         0 Hytes         1 Hytes         0 Hytes	Server WAN	600	bitsOut	Bits Out	Bits Out	439	15 Bits	0 /890	((TR_TOKEN-DLL_BYTES) 8.0)	S E
Server WAN         GOID Plastin         Bytes Int         Bytes Int         Bytes Int         Close Interest	_	009	bytes	Bytes	Byles	7 9	1 Byles	Ol/36C	I'M TOKEN	3 5
Server WAN         GOOD discardes Frames         Observed Frames         Discarded Frames         Discarded Frames         Observed Frames         Observe		900	bytesin	Bytes in	Dyles in	2 F	4 Bidge	Jeal D	ITS TOKEN SIL BYTES	7
Control of the cont	_	900	bytesOut	Bytes Out	Discarded Frames	25	2 Frames	0/800	TR FRAME COPED	ĸ
GOID discards Duty   Coin discards Out   Coi	Some MAN	900	decardela	Discords in	Discards In	196	2 Frames	O /sec	DIL_COLLISIONS	ົ
600 discardsOut         Discards Out         Discards Out         157         2 Frames         0 Issue           600 discardsOut Cet         Emrors         Emrors         Emrors         1	Server WAN	900	discardsinPet	Discards in %	Discards in %	529	4 Percent	80	100.0"DELTA_TIME"DLL_COLLISIONS/DLL_FRAMES	<u>5</u>
600 control         Emrit         Emrit         7         2 Frames         1 %           600 control         Emrs         Emrs         Emrs         17         2 Frames         0 base           600 control         Emrs         Emrs         Emrs         0 base         0 base           600 control         Emrs         Emrs         0 control         213         2 Frames         0 base           600 control         Emrs         Emrs         0 control         220         4 percent         1 ke           600 control         Emrs         Emrs         0 control         220         4 percent         1 ke           600 control         Emrs         Emrs         0 control         220         4 percent         1 ke           600 control         Emrs         Emrs         0 control         220         4 percent         1 ke           600 control         Emrs         Frames         Frames         1 control         220         4 percent         1 ke           600 form         Emrs         Emrs         Frames         1 control         2 ke         2 ke         2 ke           600 form         Emrs         Emrs         Emrs         1 ke         2 ke         2 ke	Server WAN	9	discardsOut	Discards Out	Discards Out	197	2 Frames	0 /380	(TR FRAME_COPIED-DIL_COLLISIONS)	2
600 orders         Efforms         Efforms         7         2 Frames         0 /sec           600 orders         Emris In         Errors in         Errors in         Errors out         213         2 Frames         0 /sec           600 orders         Errors out         Errors out         Errors out         Errors out         1 /sec           600 frames         Frames         Frames out         272         2 Frames         0 /sec           600 frames         Frames out         Errors out         Errors out         272         2 Frames         0 /sec           600 frames         Frames out         Frames out         Errors out         Frames out         28         2 Frames         0 /sec           600 frames         Frames out         Frames out         Frames out         1 /sec         0 /sec           600 frames         Good Polis         148         4 Percent         1 /sec           600 frames         Missed Polis         Missed Polis         Missed Polis         1 /sec         0 /sec           600 frames         Good Polis         Individual out         1 /sec         2 /sec         0 /sec           600 frames         Good Polis         Missed Polis         Missed Polis         Missed Polis         1 /sec			T Constitution of the cons	Discourie Out %	Discards Out %	531	4 Percent	%	100.0*DELTA_TIME*(TR_FRAME_COPIED- DLL_COLLISIONS)/(TR_LOST_FRAME-DLL_FRAMES)	193
600 enrorsOut         Errors in %         Errors in %         Errors in %         Errors in %         Errors out         213         2 Frames         0 Recond         1 %           600 enrorsOut         Errors Out         2.20         4 Percent         1 %         1 %         1 %           600 enrorsOutPcd         Errors Out %         Errors Out %         Errors Out %         Errors Out %         5.22         4 Percent         1 %           600 fermes out         Frames         Frames         Frames         1 2 Frames         0 /sec           600 fermesOut         Frames Out         2.8         2 Frames         0 /sec           600 fermesOut         Frames Out         2.9         2 Frames         0 /sec           600 goodPoils         Good Poils         Good Poils         1/8         4 Percent         1 /sec           600 fermesOut         Frames Out         2.0         1 /l /liliseconds         1 /liliseconds         1 /liliseconds         1 /liliseconds         1 /liliseconds           600 fermesOut         Alssed Poils         Missed Poils         Missed Poils         Missed Poils         1 /liliseconds         1 /liliseconds           600 forn/Unicastin         Nonunicast Out         Reachability         182         10 Total Time         0 /ls	Server WAN		local decay of	France	Errors	7	2 Frames	0,1890	TR FREQUENCY	2
600 enrorabit pet         Errors Out         Errors Out         Errors Out         212         A Percent         1 %           600 enrorsOutPet         Errors Out %         Errors Out %         Errors Out %         Errors Out %         522         4 Percent         1 %           600 ferrors         Ferrors Out %         Errors Out %         Errors Out %         Errors Out %         522         4 Percent         1 %           600 ferrors         Ferrors Frames         Frames out %         Frames out %         600         <	Server WAN		emorsh	Errors In	Errors In	213	2 Frames	0/860	DIL ERRORS	2 5
6100 femos Out         Errors Out         \$ 532         4 Percent         1 Strames         0 State           600 femnstin         Frames Out         Frames Out         28         2 Frames         0 State         0 State           600 femnstin         Frames Out         29         2 Frames         0 State         0 State           600 femnstin         Frames Out         208         11 Milliseconds         1 (mssc)           600 month/bleast         Missed Polis         Missed Polis         Missed Polis         119         4 Percent         1 Strames           600 month/bleast         Montalicast Dut         Nonunicast In         198         2 Frames         0 State           600 month/bleast         Montalicast Dut         Montalicast Out         199         2 Frames         0 State           600 month/bleast         Reachability         Reachability         182         10 Total Time         1(%)           600 leachability         Rebods         Rebods         10 Total Time         1 State	Server WAN	9	lenorsInPct	Errors in %	Errors In %	230	4 Percent	3º	TO O'DELTA TIME OLL ERRORS OLL FRAMES	2 29
600 femors Out PA         Errors Out %         532         4 Percent         1 %           800 femors         Frames         1 2 Frames         1 2 Frames         0 /sec           600 femors         Frames Out         2 Frames         0 /sec           600 femors         Good Polls         Good Polls         118         4 Percent         1 /sec           600 famous Combines         Good Polls         Good Polls         118         4 Percent         1 /sec           600 famous Combines         Good Polls         Listency         Listency         14 /sec         1 /sec           600 famous Combines         Missed Polls         Missed Polls         Missed Polls         119         4 Percent         1 /sec           600 for University         Nonunicast         Nonunicast         1 /sec         0 /sec         0 /sec           600 for University         Nonunicast Out         Nonunicast Out         199         2 /sec         0 /sec           600 for University         Nonunicast Out         189         2 /sec         0 /sec           600 for University         Nonunicast Out         189         2 /sec         0 /sec           600 for Out University         Nonunicast Out         189         2 /sec         0 /sec	Server WAN	9	errorsOut	Errors Out	Emors Out	212	z Frames	Olysec	100 O'DELTA TIME TREQUENCY.	
Configuration		0.00	#Opi Ostonia	Firms Out %	Errors Out %	532	4 Percent	1 %	DIL ERRORSIVITR LOST FRAME-DIL FRAMES)	\$
600 fermes/in         Fermes of Frames Out         Frames Out         29         2 Frames Of Frames Of Frames Out         Prames Out         29         2 Frames Of Frames Of Frames Out         O/Buc Of Pact           600 poodPolls         Good Polls         Good Polls         118         4 Percent         1 /k           600 Integery         Latency         208         11 /killiseconds         1 /k           600 missedPolls         Missed Polls         Missed Polls         119         4 Percent         1 /k           600 monUnicast         Nonunicast         Nonunicast In Nonun	Server WAN	09	fremes	Frames	Frames		2 Frames	Des/ 0	TR LOST FRAME	31-
600 femos Out         Frames Out         25 or Frames Out         27 or Frames Out         1 %           600 flatency         Good Polis         Listency         208 11 Millisecords         1 fmsech         1 fmsech           600 missed Polis         Missed Polis         Missed Polis         119 4 Percent         1 fmsech           600 floror/Unicastin         Nonunicast In In In It In	Server WAN	9	framesin	Frames in	Frames In	<b>8</b>	ZIFTBITTES	O LES	VICE COST EDANGED EDAMES	8
600 good Poils         Good Poils         Good Poils         118         4 Percent         1 %s           600 latency         Latency         Latency         208         11 Miliseconds         1 (misson of points)         1 (m	Server WAN	8	fremesOut	Frames Out	Frames Out	82	Zirames	2000	1100 0-600D POLLS/(GOOD POLLS+MISSED_POLLS+BA	
GOO   GOOT   Court		-	- Control of the Cont	Good Polis	Good Polis	118	4 Percent	*	D_POLLS+REBOOTS))*DELTA_TIME	22
Missed Polis   Missed Polis   Missed Polis   119   4 Percent   1 %   Missed Polis   119   4 Percent   1 %   Missed Polis   Missed Polis   119   4 Percent   1 %   Missed Polis   119   2 Frames   0 Jisto   119	Server WAN	38	goodrons	1 afterior	Latency	208	11 Milliseconds	1 (msec)	LATENCY	-
Missed Polis   Monunicast   Mo	Server WAN	200	Jamency	in the second		,	1		(100.0%MSSED_POLLS/(GOOD_POLLS+MISSED_POLLS+B	28
600 Incrutulcast         Nonunicast         Nonunicast         Nonunicast In         198         2 Frames         Olsec           600 Incrutulcastori         Nonunicast Dut         Monunicast Dut         Nonunicast Dut         199         2 Frames         0 Issec           600 Incrutulcast Dut         Nonunicast Out         Nonunicast Out         Nonunicast Out         199         2 Frames         0 Issec           600 Incrutulcast Out         Reachability         Reachability         Reachability         Reboots         1 [%]           600 Indoors         Reboots         Reboots         121         4 Percent         1 [%]           600 Indoors         Information Professional Professional Philips         University Only Professional Philips         10 Issec         0 Issec	Server WAN	\$	missedPolis	Missed Polls	Missed Polls	200	4 Percent	6 6	DI BOASTS	4
Stop   Teach and the control of th	Server WAN	900	nonUnicast	Nonunicast	Nonunicasi	000	2 Frames	O /sec	DLI MCASTS	3
Stop neart-ability   Reachability   Reachability	Server WAN	3	nonUnicastin	Nonuncast m	Monthligast III	180	2 Frames	0//sec	(DLL BCASTS-DLL MCASTS)	8
G00   reachability   Reachability   182   10   Total Time   1(%)	Server WAN	8	nonUnicastOut	Nonunicast Out	TO TOP TOP TOP TOP TOP TOP TOP TOP TOP T					
600 [eboots	Server WAN	- 009	reachability	Reachability	Reachability	182	10 Total Time	1 (%)	(REACHABLE_TIME-100.0-DELTA_TIME/TOTAL_TIME-1.0))	76
Conclusionaria Periodici Pals Union Proto Pals 104 2 Franco 0 Sec		1	nhoole	Behools	Reboats	121	4 Percent	**	OLIS/REBOOTS)]/DELTA_TIME	8 4
	Server WAN	8	hintownPmtocolPackats	Unknown Protocol Pkts	Unkn Proto Pkts	104	2 Framos	0//sec	TR LINE	1

label	element type symbol	pe symbol	label Amilibility	Short label	var id units id laber	10 Total Time	units type text		3 5
		o de contra de la contra della contra della contra de la contra de la contra de la contra della						(100.0°BAD_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD_	
Modem	707	700 badPolls	Bad Polls	Bad Polls	120	4 Percent	*	POLLS+REBOOTS))*DELTA_TIME	8
T pp	102	700 banduidih	Bandwith Utilization	BW UII	508	4 Percent	<u>*</u>	(10).D.Y(DIL_TRANSITS+DIL_ENET_FRAMES)'BL*DELTA_ TIME/DIL_BYTES)/(TR_SET_RECOVERY_MODE+DIL_AL IGN_ERRORS)/DELTA_TIME)	124
		200 bondridikia	Openfuldih (Iffitzellen in	a list Me	210	A Dornant	3	100.0 (OLL_ENET_FRAMES' 8.0 DELTA_TIME/DLL_BYTES)	ţ
lx.							8 1	100.0"(DLL_TRANSITS'8.0"DELTA_TIME/DLL_BYTES)/(DLL	
	70	700 His	(Bits	100 mm	437	4 recent	- 0	// TRANSTEAD! ENET FRANFS!*8 0)	163
Modern	R	Oblish	Bits In	Halls th	438	15 Bits	Office	COL ENET EDAMES'BO	L
Modom	20	OblisinPerCaliSecond	Bits in Per Call Second	Bits h/Call Soc	29	13 Geugo	-	DLL ENET FRAMES BODELTA TIME/OLL BYTES	Ľ
Modern	202	OblisOut	Bits Out	Bits Out	439	15 Bits	0/860	(DLL TRANSITS*8.0)	L
Modem	70	0 bitsOutPerCalSecond	Bits Out Per Call Second	Bts Out/Call Sec	403	13 Gaugo	-	OLL TRANSITS 8.0 DELTA TIME/DLL BYTES	123
Moder	Š.			Bita (Call Cas	Ş	12.00		(OLL_TRANSITS+DLL_ENET_FRAMES)'8.0'DELTA_TIME/D	
Modem		700 historia	Bireled Out Time	Bueled Out	378	d Percent	3	INDUTE FRAME CORED	18
Modern	02	700 hytes	Bytes	Bytes	22	1 Byles	0//86	DIL TRANSITS+DIL ENET FRAMES	1
Modern	Ž	700 bytestn	Bytes In	Bytes In	18	1 Bytes	0/890	DLL ENET FRAMES	8
Modern	2	700 bytesOut	Bytes Out	Byles Out	8	1 Dytes	0/290	DLL_TRANSITS	7
Modern	20	700 call RcvRate	Speed in	Speed In	324	0 Rate	C/sec	TR SET_RECOVERY_MODE	12
Modern	70	700 callXmtIRate	Speed Out	Speed Out	323	0 Rate	0//890	DLL, ALGN, ERRORB	F
Modem	70	700 connectErrors	Connect Errors	Connect Errors	314	0 Rate	ol/sec	OLL_MCASTS	ີ
Modem	02	700 connections	Connections	Connections	317	O Rate	0/890	TRILINE	9
Модет	70	700 connectTime	Connect Time	Connect Time	320	4 Percent	*	100.0 TR_ABORT	505
Modern	70	O disabledTime	Disabled Time	Disabled Time	321	4 Percent	26	100.0 TR ADDRESS COPIED	3
Modem	700	O discarded Frames	Frames Discarded	Frames Discarded	98	2 Frames	0/800	DIL COLLISIONS	٦
- Edoka	-	OderandadFramesPrd	Frames Olscarded %	Frames Dscrded %	705	4 Percent	*	100.0 DELTA_TIME DUL_COLLISIONS(111_61 LEAWIN) G+TR_CONTENTION_STREAMING)	301
Modern		700 frame Frame	Frame Errora	Frame Errors	315	2 Frames	0/890	DLL_ERROPS	Ц
	F	700	Design Green	From F	704	4 Percent	*	100.0°DELTA_TIME*OLL_ERRORS/(TR_BIT_STREAMING+T R CONTENTION STREAMING)	302
Modern	-	Office	Figures	Frames	-	2 Frames	0/890	TR BIT STREAMING+TR CONTENTION STREAMING	97
Modern		O framouto	Frames In	Frames In	82	2/Frames	0//88c	TR BIT STREAMING	7
Modern		ZonframesOut	Frames Out	Frames Out	8	2 Frames	0//880	TR_CONTENTION_STREAMING	13
Michael		on the second						(100.0-GOOD_POLLS/(GOOD_POLLS+MISSED_POLLS+BA	_
Modem	2	700 good Polls	Good Polis	Good Polis	3 48	4 Percent	82	D POLIS+REBOOTS)) DELTA TIME	9 6
Modom	2.0	10 latency	Latency	Latency	208	11 Milliseconds	(mago)	MAN DENISED POLISINGS POLISED POLISED	L
Modem	- V	700 missadPolis	Missed Polls	Missed Polis	119	4 Percent	1 %	AD POLLS+REBOOTS) DELTA TIME	88
			į	The state of the s	306	A Dorrond		100.0*[TR_INTERNAL+TR_ABORT+TR_ADDRESS_COTTED +TR_CONGESTION+TR_FRAME_COPIED+TR_LLC_FRAME SI	118
Modem	2	700 modemBusyTime	Modern Busy 11me	MUDDILL BURN THIN		10000	0	INI MCASTS+DIE XMT OFF FRAMES	102
Modern	70	700 modemErrors	Modern Errors	Modern Errors	310	A Dorroant	18	IODOTR INTERNAL	104
Modem	2	10 offhook Time	Oil Hook Line	On Hook Time	148	4 Percent		100.0 TR BURST	103
Modem	2	10 ontrockTime	Ch Hook lime	Oil right filling	353	OBate	Okec	DIL XMT OFF FRAMES	9
Modern	2	10 otherErrors	Other Errors	Oiller Circus	1	Name of the last			
	F	700 months thill by	Reachability	Reachability	182	10 Total Time	1 (%)	(REACHABLE_TIME*100.0*DELTA_TIME/ITOTAL_TIME*1.0))	26
Modern	*     -				707			(100.0*REBOOTS((3000_POLLS*MISSEU_FOLLS*BAU_F	
Modom	700	10 reboats	Reboots	Reports	318	17 Per Call Minute	1 (/Cell Min)	TR SIGNAL LOSS'60.0'DELTA TIME/DLL BYTES	ē
Modern	2	10 retreims	Herdin	Test Time	379	4 Percont			108
Modern	2 2	lo tost lime	I Introver Time	Unknown Time	322	4 Percent	4,8	100.0 TR CONGESTION	è
Wodem	2 8	700 unxnown ume	Availability	Availability	181	10 Total Time	1(%)	(AVAILABLE TIME 100.0)	1
ISON Interface	-	Палана		:			3	(100.0*BAD_POLLS/GOOD_POLLS*MISSEU_POLLS*BAD_   DOLI SADERODISWINDELTA_TIME	8
ISDN Interface	2	701 badPolls	Bad Polls	Bad Polls	120	4 Percent	11.20		

Second colored   Property   Pro									r	
This broked in the part of t	fabel	element type	symbol	label		ar in mits	ianei ianei	umis_type text		2
This production	SON Interface	- 62	handel	Bandwidth Utilization	Bw UIII	509	4 Percent	*	TIME/DLL_BYTES)/((TR_SET_RECOVERY_MODE+DLL_AL GN_ERRORS)/DELTA_TIME)	124
This production   This continue   This conti						-			100.0"(DLL_ENET_FRAMES'8.0"DELTA_TIME/DLL_BYTES)/	Ę
This interface   This	SDN Interface	<b>7</b> 9	bandwigthin	Bandwidth Utilization In	BW Cita in	2	4 Percent	<b>P</b>	(TR_SET_RECOVERY_MODE/DELIA_LIME)	67
This control	SON Interface	202		Bandwidth Utilization Out	BW Util Out	211	4 Percent	*	ALGN ERRORS/DELTA_TIME)	126
This black   Thi	ASDN Interface	701		Bits	Bits	437	15 Bits	O /sec	((DLL_TRANSITS+DLL_ENET_FRAMES)*8.0)	163
This black of the control of the left of a figure of the control of the left of a figure of the control of the left of a figure of the control of the left of a figure of the control of the left of the control of the left of the control of the left of the control of the cont	RDN Interface	701		Bits In	Bits In	438	15 Bits	0 /sec	(DLL_ENET_FRAMES'8.0)	<u>5</u>
This block   Thi	(SDN Interface	701	bitsInPerCallSecond	Bits In Per Call Second	Bits In/Call Sec	402	13 Gauge	-	OLL ENET FRAMES'8.0"DELTA_TIME/DLIL_BYTES	12
770   Pain-Collected   180 Out for call shound   190 Out Call sh	ISON Interface	701	bitsOut	Bits Out	Bits Out	439	15 Bits	0 (280	(OLL_TRANSITS*8.0)	£
71   Districtuiscus   10   Districtuiscus	ISDN Interface	707	bilsOutPerCallSecond	Bits Out Per Call Second	Bis Out/Call Sec	403	13 Gauge	-	DIL TRANSITS'8.0"DELTA TIME/DUL BYTES	2
This process of the control of the				4					(OLL_TRANSITS+DLL_ENET_FRAMES)*8.0*DELTA_TIME/D	Ş
Tribute   Continue	SUN Interace	701	bitsPerCaliSecond	Bils Per Call Second	Bris/Call Sec	401	13 Gauge		CL BYIES	5 \$
This process   This	ISDN Interface	ğ	busyTime	Busied Out Time	Busied Out	378	4 Percent	%	100.0 TR FRAME COPIED	
The present	SDN Interface	707	bytes	Bytes	Bytes	7	118768	0 /360	OLL TRANSITS+DLL ENET FRAMES	7
Trip Principle   Trip	ISDN Interface	2	bytesin	Bytes In	Syles in	2 8	1 Bytes	Dascio	DEL CIVEL TRAMES	7
This control of the	ISON Interface	70,	bytesOut	Bytes Out	Byles Cul	2 2	Tibwes	0/1580	THE STATE OF THE S	1
This control is a passed of the control is a p	ISDN Interface	70,	callRcvRate	Speed In	Speed in	324	OKate	Olysec	IK SEL KEKZVEKT MUDE	1
This contractions	ISDN Interface	701	callXmitRate	Speed Out	Speed Out	27	O Kate	01/390	ULL ALGN ERRORS	T
Triple   T	ISDN Interface	701	connectErrors	Connect Errors	Connect Errors	314	CIKate	01/280	DIL MCASIS	1
70   Control	ISDN Interface	701	connections	Connections	Connections	317	O Rate	O /Sec	TR LINE	2   2
701   Glassification of Traines Discussed   702   Glassification of Traines Discussed   703   Glassification of Traines Discussed   703   Glassification of Traines Discussed   704   Glassification of Traines Discussed   705   Glassification	ISDN Interface	701	connecttime	Connect Time	Connect Time	320	4 Percent	20,00	100.0-1K ABUKI	3 5
70   Discrete France   France Decorded   Franc	ISDN Interface	701	disabledTime	Disabled Time	Disabled I ime	57 6	4 Percent	200	TOUR ADDRESS COPIED	3
701   Identification   Firming Discussion   Firmi	ISDN Interface	701	discardedFrames	Frames Discarded	Frames Discarded	270	Z Frames	Olysec	ACCOUNT THE THE STATE OF THE OWNER OF STREAMIN	1
70   Immediate   Farme Bross	ICON Introduce	702	die condod Promos Det	Framos Discardad %	Frames Dscrded %	705	4 Percent		G+TR CONTENTION STREAMING)	
Total International Control International	tent interface	107	frameEmpre	Frame Frants	Frame Errors	315	2 Frames	ı	DLL ERRORS	9
Total female   Transport   T									100.0 DELTA_TIME:DLL_ERRORS/(TR_BIT_STREAMING+T	
701	ISDN Interface	701	frameErrorsPct	Frame Errors %	Frame Errors %	B .	4 Percent	ı	TO DIT STREAMING TO STREAMING	
Tot   Internation   France	ISDN Interface	701	frames	Frames	Frames	- ;	Z Frames	ı	THE BIT STREAMING THE CONTENTION STANDARD	
Triple   T	ISDN Interface	701	framesin	Frames In	Frames in	8 8	Semen 2	1	TO CONTENTION STREAMING	Ş
701   Good Polis	ISDN Interface	701	framesOut	Frames Out	Frames Out	1	Zirrames	1	MANAGOOD DOLLSHOOD POLISHMISSED POLISHBA	T
Total control   Total contro			-	offed took	Good Polls	118	4 Percent		D POLLS+REBOOTS) DELTA TIME	3
Total   Tota	ISON Interface	10/	goodFoils	Cood Ford	Latency	R	11 Miliseconds	1 (msac)	LATENCY	8
Total Passacrois   Missael Polis   19   4 Percent   1%   AND COLESTRONI-TR_ABORT-TR_LIC_FRAME	ISDN Intenace	10/	intericy	raidity		-			(100.0 WISSED_POLLS/(GOOD_POLLS+MISSED_POLLS+B	9
Tri	ISDN totarface	704	missedPolis	Missed Polis	Missed Polls	119	4 Percent	188	AD POLLS+REBOOTS))*DELTA TIME	R
Tri   Involved   Tri								;	100.0'(1K_INIERNAL-1K_ABURI *1K_ADURESS_COTTED +TR_CONGESTION+TR_FRAME_COPIED+TR_LLC_FRAME	- 6
Trime   Trim	ISDN Interface	107	المساوسق يهارا فالم	Morten Bury Three	Woden Buty Time	56,		8,7	DI MONSTRADI YAT OFF FRAMES	200
To   To   To   To   To   To   To   To	ISDN Interface	101	ينه وافدان مذيرة	the feet of root	Voger Errors	۾ اور	Deiner	10000	100 0°TR INTERNAL	104
Trivenest   Triv	ISDN Interface	101	no al ma		100 100		Alberrani	100	100.01R BURST	103
Tri remain   Tri	ISDN Interface	10.		On March 1146		Š	OiDate	Olyser	DIL XMT OFF FRAMES	9
Triverse   Compared	ISON Interface	١	اعدمو سعد	E L		-				-
Triethorn		i		Destroy for	Paschubiny	182	10 Total Time	1(%)	(REACHABLE_TIME*100.0*DELTA_TIME/(TOTAL_TIME*1.0))	192
Tri   Interval   Tri	ISDN menace		1	-				- 1	(100.0*REBOOTS/(GOOD_POLLS+MISSED_POLLS+BAD_P)	8
Total Time	ISDN Interface	Ē	returner	Behruft	Na book	2	4 Percent	8 8	400 OTB 11 C EDAMES	훈
725   Protection   1   10   CAMALLISE   TIME   10   CAMALLISE	ISDN Interface	15,		Ta live	Teet Time		4 Percent	7	AND OTHER CONCESTION	407
125 leve letting	ISDN Interface	701		Unimount form	Criticown Lines	777	40 Total Time	1/6/1	(AVAILARI F TIME*100.0)	11
725 bis description         Bas on Ports         Research         178 pouts-readoor(s))***DELTA_TIME           725 bis description         Bis in Per Call Second	Remote Access Server	725	everlating	Ava tatulity	AVBIRDINA		DI IOI		(100,0°BAD_POLLS/(GOOD_POLLS+MISSED_POLL3+BAD_	,
Company			9	Rad Della	Bad Polls	120	4 Percent	18	POLLS+REBOOTS))*DELTA_TIME	8
T25 bitsh	Romote Access Server	775	Mis	Bits	Bits	437	.15 Bits	0/800	((DLL_TRANSITS+DLL_ENET_FRAMES) 8.0	3 6
725 blishPerCallSecond   Bits in Per Call Second   Bits in Per Call Second   Bits Out   439   15 Blis   0/sec   (OLL_TRANSITS'8.0)   1725 blistOut   1818 Out   181	Remote Access Server	725	Niela Niela	Bits in	Bits In	438	15 Bits	0 /860	IOLL ENET FRAMES'8.0)	3 5
725 blis Out Bits Out	Hemiote Access Server	725	bitsinPerCallSecond	Bits In Per Call Second	Bits In/Call Sec	402	13 Gauge	- 1	DIL ENET FRAMES BUTDELIA IIMEDULE STILLE	18
725/bilsOu/PerCall Second Bis Out Per Call Second Bis OutCall Sec 1 403 13/43/09 1	Semote Access Server	725	bitsOut	Bits Out	Elts Out	Ş	15 Bits	Olysec	DIT TRANSITS & TIME/DIL BYTES	123
	Permits Access Server	725	bitsOutPerCaliSecond	Bits Out Per Call Second	Bts Out/Call Sec	903	13/08098			

had	l small	- American	Judgel.	short label	var id lun	units to liabel		units type itext	col expression  col id	=
	arenicui Abra	iornike.							ISITS+DIL_ENET_FRAMESI'8.0'DELTA_TIME/D	;
Remote Access Server	725	725 bitsPerCallSecond	Bits Per Call Second	Bils/Call Sec	404	13 Gauge	989	+	LL BYTES	5
mote Access Server	725	725 busyTime	RAS Busted Out Time	RAS Busted Out	393	4 Pe	d Percent	1 %	100.0 TR FRAME COPIED DELTA, TIMETIR LOST FRAME 11	115
Remote Access Server	725	725 bytes	Bytes	Bytes	2	1 By	Bytes	0 /560	1	뒤
поте Ассеза Вегуел	725	bytestn	Bytos In	Bytes in	18	1 By	Bytes	0 /380	DLI_ENET_FRAMES	6
note Access Server	725	725 bytesOut	Bytes Out	Bytes Out	20	189	Bytes	0/260	DIL TRANSITS	-
moto Access Server	725	connectErrors	Connoct Errors	Connect Errors	314	0 Ra	Rate	0 /890	DLL_MCASTS	6
mote Access Server	725	connections	Connections	Corrnections	317	0 Rate	l e	0 /880	TR_LINE	18
moto Access Server	725	connectTime	RAS Connect Time	RAS Connect Time	380	A Pe	Percent	32	ABORT-DELTA TIME/TR LOST FRAME	112
PRemote Access Sorver	725	725 could tization	CPU Utilization	CPU Utilization	2	4	4 Percent	%	L	٦
						-		-	O'TR_ADDRESS_COPIED'DELTA_TIME/TR_LOST_FRA	
Homore Access Server	725	725 disabledTime	RAS Cisabled Time	KAS DSDIO Time	100	4	Percent	8		=[
Remote Access Server	725	discardedFrames	Frames Discarded	Framos Diocarded	92	2 Fr	Framet	0/800	DLL_COLLISIONS	•
Rounta Across Sovor	acr	T18 diameter Con	Special Discorded &	Frames Derived %	202	- 4	Percent	_ <del></del>	100.0°DELTA_TIME*DIL_COLLISIONS(TR_BIT_STREAMIN)  G+TB_CONTENTION_STREAMING)  30	301
Romato Acreso Const	775	historian in the series	France Cream	From From	3 5	1	Frames	O feer		٤
100 000000	,	aniigelina.	Tigue Ciole	TOUR PLINE			2	2000	1400 0*DELTA TIME-DIT FREDRE/TR BIT STREAMING+T	1
Romete Accoss Server	725	(nameErrore Det	# HOLETON	Frame Errors %	704	4	Percent	*		302
Romote Access Server	725	725 frames	Frames	Frames	Ē	21	Frames	0//sec	TR BIT STREAMING+TR_CONTENTION_STREAMING 9	6
Remote Access Server	725	framesin	Frames In	Frames In	38	2 5	Frames	0/890	TR BIT STREAMING	2
Remote Access Server	725	framesOut	Frames Out	Frames Out	53	2	Frames	0 /980	TR_CONTENTION_STREAMING	2
								_	¥B•	Γ
Remote Access Server	725	goodPalls	Good Potts	Good Polls	18	4	Percent	*	1	6
Remote Access Server	725	latency	Latency	Latoncy	208	1. M	Milliseconds	1 (msec)		<u>~</u>
Remote Access Server	725	725 memory	Memory	Memory	376	, B	Bytes	4 (bytes)	TR_SET_RECOVERY_MODE	1
Remote Access Server	725	memonyFree	Memory Free	Memory Free	706	, B	Bytes	4 (bytes)	TR SET RECOVERY MODE-DIL ALGN ERRORS	<u>ş</u>
Remote Access Server	725	memoryUsed	Memory Used	Memory Used	375	7 9	Bytes	4 (bytes)	DIL ALGN ERRORS	=
	ì		Manage of the section	Mamone IIII	489	- 4	Parrent	<del>*</del>		86
Komote Access Server	725	memoryUllization	Memory Chilization	Merici y Cui	2	-			MODINGSED POLISHGOOD POLLS+MISSED POLLS+B	1
Remote Access Server	725	725 missedPolls	Missed Pails	Missed Polis	119	4 Pe	Percent	4	┙	88
								_	100.0°(TR_INTERNAL+TR_ABORT+TR_ADDRESS_COPIED)	
					Š		-	9		17
Remote Access Server	725	725 modemBusy Time	Modern Busy Time	Modern Busy I me	200	100	Percent	200/00	MES	ş
Remote Access Server	725	modemErrors	Modern Errora	Modelli Cicora	300		Chan			54
Remote Access Server	725	moderns	Number of Moderns	Modeme Burn	307	9		9		R
Remote Access Server	123	725 moderns Busy	Moderns Busy	Pet Moderns Busy	166	4	Percent	18		8
Hamola Access Server	207	modeliscus), c.	DAS Off Hook Time	RAS Off Hk Time	389	4 P.	Percent	1 %	+	
Hemote Access Server	775	725 carbook Thra	RAS On Hook Time	RAS On Hk Time	388	4 P	Percent	1%	100.0 TR BURST DELTA TIME/TR LOST FRAME	=
Remote Acress Server	725	otherErrors	Other Errors	Other Errors	352	0 Rate	ıte	0/200	DLL XMT OFF FRAMES	T
50.00 000000000000000000000000000000000				1	Ş	- <u>F</u>	47 Total Times	1/8%		76
Remote Access Server	222	725 reachability	Roochability	квасивонну		1	0111		L	Γ
Section Contract	36.1	refrante	Rebrots	Rebaots	121	4 Pe	4 Percent	1 %	OLLS+REBOOTS))*DELTA_TIME	
Remails Access Server	35	retroine	Retrains	Retrains	316	12 Pc	Por Call Minute	1 (/Cati Min)	TR SIGNAL LOSS 60.0 DELTA TIME/DILL BYTES	5
moto Access Solver	178	725 heat Time	RAS Tost Time	RAS Test Time	394	4 Pe	Percent	7	1	1
Comple Access Server	, V	internate Time	RAS Unknown Time	RAS Unknown Time	392	4 Pe	Percent	- 8	T	1
HOLD ACCESS GUIVUI	3		i d	Bod Podis	120	4	Percent	- 2.	<u> </u>	£
RASICPU	3 5	750 badyons	Coli Itilization	CPU Utilization	20	4	Percent	1%	DLL BCASTS	7
RAS CPU	8	chundultandi			•	۲		<u>*</u>		52
RASCPU	750	750 good Polfs	Good Polls	GOOD POIS			-		_	ű
RASCPU	750	750 missedPolls	Missed Polls	Missed Polis	=	+	Percent	-	+MISSED_POLL3+BAD_P	1
	100	il and a	Rahnols	Roboots	121	4 Pe	Percent	7	4	8
RASCPU	B	/ Solrebbois	Nachari							

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			1-4-4	1	1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		7
label	element type symbol	label	Short (308)	Var to units to tabe	5_10 (20¢)	witts type text	(100.0°BAD POLLS/(GOOD POLLS+MISSED POLLS+BAD	2
Madem Pool	775 badPolts	Bad Polls	Bad Polls	120	4 Percent	%	POLLS+REBOOTS)) DELTA_TIME	33
Modern Pool	775 bits	Bits	Bits	437	15 Bits	O /sec	((DLL_TRANSITS+DLL_ENET_FRAMES)*8.0)	喜
Modern Pool	175 bilisin	Bits in	Bits In	438	15 Bits	0 /sec	(DLL_ENET_FRAMES*8.0)	165
Modern Pool	775 bitsinPerCallSecond	Bits In Per Call Second	Bits In/Cell Sec	402	13 Gauge	+	DLL_ENET_FRAMES'8,0'DELTA_TIME/DLL_BYTES	122
Modem Pool	775 bitsOut	Bits Out	Bits Out	439	15 Bits	0/280	(DLL_TRANSITS*8.0)	168
Modern Poot	775 bitsOutPerCallSecond	Bills Out Per Call Second	Bis Out/Call Sec	403	13 Gauge	4	DLL_TRANSITS*8.0*DELTA_TIME/OLL_BYTES	123
Modern Pool	775 bitsPercalSecond	Blis Per Call Second	Bits/Call 3ec	401	13 Gauge	-	(OLL_TRANSITS+DLL_ENET_FRAMES)'8.0*DELTA_TIME/D LL BYTES	121
X A	3.7.5 min 3.7.2	C Potent C Long	O project	906				L
Modern Book	TO DOSA IIII	Tool pusied Out 1108	Low busieu col	ğ	- Leiceni	e .	100.0 IN FRAME COPIED DELIA IIMENIK LUSI, FRAME	
Modem Beet	775 - 4-1	Bytes	layras	7	1 By/88	0//290	DIL_TRANSITS+DIL_ENET_FRAMES	<u> </u>
modelii rodi	mserio c//	bytes in	Dyres in	2	1 By/88	0/280	DIL_ENET_FRAMES	_
Modern Pool	775 bytesOut	Bytes Out	Bytes Out	20	1 Bytes	0/sec	DUL_TRANSITS	_
Modern Pool	775 connectErrors	Comed Errors	Connect Errors	314	0 Rate	0/sec	DLL_MCASTS	3
Modem Pool	775 connections	Comectors	Connections	317	0 Rate	0/sec	TR_LINE	æ
Modem Pool	775 connect Time	Pool Connect Time	Pool Corm Time	8	4 Percent	2 28	100.0°TR ABORT DELTA TIME/TR LOST FRAME	12
Modem Pool	775 diestrone	Dood Disabled Time	Doot Detted Time	786	Dorman	- 4	100.0°TR_ADORESS_COPIED*DELTA_TIME/TR_LOST_FRA	;
Modern Pool	775 discarded Frames	Frames Discarded	Frames Discarded	2	2 Frames	0/890	SIN COLLISIONS	2 6
				-			100 DELTA TIME DIL COLLISIONS/ITR BIT STREAMIN	
Modern Pool	775 discardedFramesPct	Frames Discarded %	Frames Dscrded %	705	4 Percent	*	G+TR_CONTENTION_STREAMING)	301
Modern Poot	775 frame Errors	Frame Errors	Frame Errors	315	2 Frames	0//860	DIL ERRORS	2
			;				100.0 DELTA_TIME DIL_ERRORS/(TR_BIT_STREAMING+T	
Modern Pool	775 frameErrorsPct	Frame Errors %	Frame Errors %	ğ	4 Percent	7%	R_CONTENTION_STREAMING)	33
Modern Pool	775 frames	Frames	Frames	- 8	2 Frames	0 /sec	TR BIT STREAMING+TR CONTENTION STREAMING	à
Modern Pool	775 framesin	Frames In	rrames in	9 8	2 Frames	285/0	IN BIL SIKEAMING	2 3
Modern Poor	//SiframesOut	Frames Out	rrames our	S I	ZI-ramos	0/290	IN CONTENTION STREAMING	2
Modem Pool	775 coodPolts	Good Polls	Good Polls	118	4 Percent	*	(100.0' GOOD_POLLS(GOOD_POLLS+MISSED_FOLLS+BA D_POLLS+REBOOTS))*DELTA_TIME	22
0				-			(100,0 MISSED_POLLS/(GOOD_POLLS+MISSED_POLLS+B	9
Modem Pool	775 missedPolls	Missed Polls	Missed Polls	61	4 Percent	£	AU FULLS*KEBUUIS)) DELIA IIME	1
			i				TOWN (TR. INTERNAL TR. ABONT TR. ADDRESS CONTENT TO THE CONDESS TOWN TR. FRAME COPIED TR. LLC. FRAME	ţ
Modern Pool	775 modemBusyThme	Modern Busy Time	Modern Busy Time	385	4 Percent	şe.	S/UELIA JIMETIA LOSI PRAME	Ę
Modem Pool	775 modernErrors	Modern Errors	Modern Errors	321	O Rate	0/390	DLL MCASI S+DLL XMI OFF FRAMES	2 2
Modem Pool	775 modems	Number of Moderns	Nmbr of Moderns	388	19 S/256	8	TR FREGUENCY	3 2
Modem Pool	775 modemsBusy	Moderns Busy	Moderns Busy	397	13.020	4	AND ORDER TA THAT TO TOWNITO EDECITENCY	3 8
Modern Poot	775 modemsBusyPct	Percent Moderns Busy	Doel Off Ut Time	) Se	4 Percent	9 5	IND OTH INTERNAL DELTA TIME/TR LOST FRAME	Ξ
Modem Pool	775 offhook fime	Poor Oil right	Dool Or Live	385	4 Damant	100	100 O'TR RUFST'DELTA TIMETTR LOST FRAME	=
Modern Pool	775 onhook time	Other France	Other Frons	352	O'Rate	0/385	DIL XMT OFF FRAMES	9
Modem Pod	10 OniBridge			7	1	-	(100.0*REBOOTS/(GOOD_POLLS*MISSED_POLLS*BAD_P	-8
Modern Pool	775 reboots	Reboots	Kepdois	3,6	12 Day Call Minute	1//Call Min	TR SIGNAL LOSS'60 O'DELTA TIMEDUL BYTES	ē
Modem Pool	775 retrains	Ketrains	Doof Toet Time	285	A Persent	186		116
Modem Pool	775 test Time	POOI ( 650 ( 1111)8	Pool Inte Time	S SE	4 Percent	7	100.0 TR CONGESTION DELTA TIME/TR LOST FRAME	114
Modern Pool	enti i matxini ci /	Attended	Attamnts	467	13 Gauge	-	(DLL BCASTS)	E
Kesponse Path	BOO BRIEFINGS	Sanica Availability	Service Avail	498	10 Total Time	1(%)	(AVAILABLE_TIME*100.0)	1
Nesponse Pain	ROO SANDARA	Ava Response Time	Avg Resp Time	440	11 Milliseconds	1) (msec)	((LATENCY/DEL_RCV_OFF_FRAMES)*DELTA_TIME)	122
neshouse relin			11110	- 6,	Agomont	- 5	(100.0°BAD_POLLS/GOOD_POLLS+MISSED_POLLS+BAD_ POLIS+REBOOTSWOELTA_TIME	83
Response Path	800 badPoils	Bad Polls	Byles by	48	1 Bytes	0//sec	DIL TRANSITS	7
Response Path	800 bytasin	Dyres m.	Bydoe Ord	2 2	1 Pvtes	0/860	(DLL XMT OFF FRAMES-DLL_TRANSITS)	182
Response Path	800 tytesOut	Bytes Out	Oyes Col				(100"((DL_BCASTS -	
-	a no fattermis	Failed Attornots	Falled Attempts	469	4 Percent	 %	DLI_RCV_OFF_FRAMESI/DLL_8CASTS)*DELTA_TIME]	5 3
Kesponse Fam	Richard	Lind	Calt	474	11 Milliseconds	1 (msec)	(\$(speed)*OELTA_TIME)	2
Kespanse Paul	BOR OCO					3	(100.0°GOOD_POLLS/(GOOD_POLLS+MISSEU_PULLS+BA	29
Response Path	800 goodPolis	Good Polls	Good Poils	18	4 Percent	412	IO FOLLSANGBOOLS), DELIA LIMIE	

label	Slament free	mmhai	Inhal	short labor	Sear ld tamble ld	lahal	traffe time fort		3
inga Path	Sucrement Name	mayBoenoneo	Mardmim Resnonse	8		May Millspenne	Timesel	Chi expression	1
	800 minResponse	minResponse	Minimum Response	Min Response	442	16 Min Miliseconds	2 (mage)	DUL FRAMES	
	900	800 missedPails	Missed Polls	Missed Polls	118	4 Percent	*	(100.0'MISSED_POLLS/(GDOD_POLLS+MISSED_POLLS+B)	5
Rosponse Path	800	800 reboots	Reboats	Reboots	121	4 Percent	2 2	(100.0° PEBOOTS) (GOOD POLLS - MISSED POLLS - BAD POLLS - RINE	8
Response Path	800	800 responseVsGoal	Response/Umit	Response/Limit	453	4 Percent	- %	(100'(LATENCY/(\$(speed)*ÖLL_RCV_OFF_FRAMES))*DELT A TIME)	Ě
XRosponse Path	wa.	enrescelid Afternate	S. innoceful Attomosts	S. C.	80			(100"(DLL_RCV_OFF_FRAMES/DLL_BCASTS)*DELTA_TIME	L
Response Path w/ Jitter	804	801 attempts	Allemeta	Attempts	467	13 Goune	<u>e</u>	(Ini acasta)	1,4
Response Path wf Jitter	801	801 availability	Service Availability	Service Avail	498	10 Total Time	1,90,1	(AVAILABLE TIMESTORD)	
Rosponso Poth w/ Jiltor	801	avgRaspTime	Avg. Response Time	Avg Resp Time	440	11 Willseconds	1 (msec)	((LATENCY/DLL RCV OFF FRAMES) DELTA TIME)	122
Rosponse Path wd litter	-		-					(100.0*BAD_POLLS/GOOD_POLLS+MISSED_POLLS+BAD_	L
Response Path w/ Illier	803	801 hydreth	Bidge for	Bad Pous	120	4 Percent	28.	POLLS+REBOOTS))*DELTA_TIME	8
Response Path w/ Jitter	108	801 bytesOut	Bytes Out	Bytes Out	20.00	1 Betes	0//20	ULL IMANSIIS	7 6
Doeson Doll to the								(100'(DLLBCASTS -	No.
Response Path w/ Litter	000	talledAttempts	Falled Attempts	Falled Attempts	474	4 Percent	8	DIL RCV OFF FRAMES/DIL BCASTS) DELTA TIME)	13
					7		1 (шевес)	(NGD000) DELLA, TIME) (100.0°GOOD_POLLS/GOOD_POLLS+MISSED_POLLS+BA	
Rusponsa Path W Jitter	80	goodPolls	Good Polls	Good Polls	118	4 Percent	78	D_POLLS+REBOOTS))*DELTA_TIME	57
Rosponse Path w/ Jitter	801	fiter	Jitter	Jiter	455	11 Milliseconds	1 (msac)	((DLL_ERRORS+DLL_ENET_FRAMES)*DELTA_TIME/(TR_A  DDRESS_COPIED+TR_TOKEN))	188
Response Path w/ Jitter	801	illerin	Ulter fr	Jiter In	476	11 Millseconds	1 (msec)	(OLL ERRORS'DELTA TIME/TR TOKEN)	П
Response Path w/ .itter	804	IllerOut	Littler Out	Litter Out	475	11 Milisaconde	1 (mean)	(OLL_ENET_FRAMES*DELTA_TIME/TR_ADORESS_COPIED	9
Rosponse Path w/ Jitter	801	тахКовропво	Maximum Response	Max Response	443	17 Max Milliseconds	3(msec)	DLL BYTES	7
Response Path w/ Jitter	801	801 minResponse	Minimum Response	Min Response	442	16 Min Milisaconds	2(msac)	DIL FRAMES	-
Response Path w/ Jitter	801	801 missedPolls	Missed Polis	Missed Polis	119	4 Percent	- 2%	(100.0*MISSED_POLLS/(GDOD_POLLS+MISSED_POLLS+8 AD_POLLS+REDOOTS))*DELTA_TIME	88
Response Path w/ Jitter	801	801 negative Jitter	Negative Jifter	Negative Jitter	478	11 Millseconds	1 (msac)	((IDLL_COLLISIONS+DLL_ALGN_ERRORS)*DELTA_TIME/(T R_ADDRESS_COPIED+TR_TOKEN))	190
Donnard Daily and Silve	ř	on all has filled	Dacilive Etter	Positive Jitter	- 449	11 Millaeconds	1 (msac)	(((OLL_ERRORS. DIL_ALGN_ERRORS)+(DLL_ENET_FRAMES. OLL_COLLISIONS))*DELTA_TIME/(TR_ADDRESS_COPVED+*)*TR TOKEN)*	189
Couponed Fath W. Atter	2	positive	Debate Aug	Dobote	124	4 Parcent	3	(100.07REBOOTS/(GOOD_POLLS+MISSED_POLLS+BAD_POLLS+BAD_POLLS+BADOTS)\( \text{Total TABLE} \)	8
אמפוסט במתו אי אוומי		anoona,	Vervors				-	(100'(LATENCY/(\$(speed)'DLL_RCV_OFF_FRAMES))'DELT	
Response Peth w Jitter	801	responseVsGoal	Response/Limit	Response/Limit	453	4 Percent	2	A TIME) (100-10) RCV OFF FRAMES/DIL BCASTS) DELTA TIME	L
Response Path w/ Biter	801	successfulAttempts	Successful Attempts	Successful At	468	4 Percent	2		
Application Response Path	802	attempts	Attempts	Altempts	467	13 Gauge	-	(OLL_BCASTS)	2 5
Application Response Path	802	802 availability	Service Availability	Service Avail	438	10 10tal 11me	1(78)	MANUABLE TIME 100.0)	L
Application Response Path	802	avgKesp1(me	Avg. Kesponse litte	Avg resp time				(100.0 BAD_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD_	L
Application Response Path	802	badPolls	Bad Polls	Bad Polls	120	4 Percent	4 4	POLLS+REBOOTS) DELTA TIME	200
Application Response Path	802	802 bytesin	Bytos In	Bytes In	æ 8	1Bytes	0//860	DLL TRANSITS	182
Application Response Path	802	bylesOut	Bries Cut	Dynas Cot	0.3			(100'(IDLL BCASTS -	
Application Response Path	802	802 fatlad Attempts	Falled Attempts	Failed Attempts	469	4 Percent	1 %	INT. RCV OFF FRAMESPOLL BURSISTUELING TIMES	2 20
Application Response Path	802	802 goal	Limit	Cirrie	0/7		(Seem)	(100.0°GOOD_POLLS/(GOOD_POLLS+MISSED_POLLS+BA	
Application Response Path	802	802/goodPolls	Good Polls	Good Polls	118	4 Percent	28	D POLLS+REBOOTS)) DELTA TIME	. 2
Application Response Path	802	802 maxResponse	Maximum Response	Max Response	443	17 Max Milliseconds	3(msec)	DIL BYTES	T
Application Response Path	802	minResponse	Minimum Response	Min Response	ž	10 Mili Millisecutius	ranni z	(100,0-MISSED_POLLS/(GOOD_POLLS+MISSED_POLLS+B	L
Application Response Path	802	802 missedPolis	Missed Polls	Missed Polls	119	4 Percent	1%	AD POLLS+REBOOTS); DELTA TIME	28

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Amilianian Decreases Dath	6	operate and a second	ato		121	ju.	*	(100.0*REBOOTS/(GOOD_POLLS+MISSED_POLLS+BAD_PION SAREBOOTS)/PORTA TIME	8
Application Mesponse Fau	708	repoors	Signal	Concer	4			(100'(LATENCY/(\$(speed) DIL RCV_OFF_FRAMES)) DELT	
Poplication Response Path	802	responseVsGoal	Response/Limit	Response/Limit	453	4 Percent	%	A TIME)  (A TIME)	£
Application Response Path	802	successfulAttempts	Successful Attempts	Successful Atl	468	4 Percent	%		13
FirstSense Response Path	803	attempts		Attempts	467	13 Gauge	-	(DUL_BCASTS)	3
ArtSense Response Path	803	availability		Service Avail	498	10 Total Time	1(%)	(AVAILABLE_TIME*100.0)	F
FirstSense Response Path	803	avgCilentResponse	136	Avg Client Resp	292	11 Milliseconds	1 (msec)	(TR_INTERNAL/DUL_RCV_OFF_FRAMES)*DELTA_TIME	210
PirstSense Response Path	903	avoNetworkResmonse	Aug Nelwork Response	Avn Network Resp	294	11 Milieponde	1 (mean)	((LATENCY-TR_INTERNAL- TR ARRENDI PCY OFF FRAMESYDELTA TIME	
FirstSense Response Path	903	903 avoResoTime	Ave. Response Time	Avo Resp Time	440	11 Miliseconds	(manu)	IN ATENCYINI BOY OFF FRAMESIONE TA TIME	13.5
FirstSense Response Path	803	803 avgServerResponse	Avg. Server Response	Avg Server Resp	593	11 Milliseconds	1 (msec)	(TR ABORTOLL RCV OFF FRAMES) DELTA TIME	21,7
The Course Open		- I			007			(100.0°BAD_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD_	
First Sense Response Pain	803	803 badrolls	Bad Polis	Bader In	DZ 4	4 Percent	18	POLLS+REBOOTS))*DELTA_TIME	200
FirstSense Response Path	803	803 bytes Out	Bytes Out	Bytes Out	202	1 Bytes	0/890	(DLL XMT OFF FRAMES-DIL TRANSITS)	182
FirstSense Response Path	- HOIS	803 failed Attempts	Failed Alternis	Signal Attends	697	4 Percent	***************************************	(100'(OLL_BCASTS -	1,5
First Sense Response Path	803	goal	Limit	Limit	474	11 Miliseconds	1 (msec)	(Stopeed) DELTA_TIME)	184
FirstSense Response Path	803	803 goodPolls	Good Polls	Good Polls	118	4 Percent	***	(100.0.'GOOD_POLLS/GOOD_POLLS+MISSED_POLLS+BA D POLLS+REBOOTS)!'DELTA_TIME	25
FirstSense Response Path	803	maxResponse	Maximum Response	Max Response	443	17 Max Millseconds	3 (msec)	DLL_BYTES	2
FirstSense Response Path	803	803 minResponse	Minimum Response	Min Response	442	16 Min Milliseconds	(швес)	DLL_FRAMES	Ŧ
FirstSense Response Path	803	603 missedPolis	Missed Polis	Missed Polis	119	4 Percent	- 1-	(100.0 MISSED_POLLS/(GOOD_POLLS+MISSED_POLLS+B AD_POLLS+REBOOTS))*DELTA_TIME	88
FirstSense Response Path	803	803 rebods	Reboots	Reboots	121	4 Percent	*	(100.0*REBOOTS/(GOOD_POLLS+MISSED_POLLS+BAD_P) OLLS+REBOOTS)/*DELTA_TIME	8
FirstSense Response Path	803	803 responseVsGaal	Response/Limit	Response/Limit	453	4 Percent	1%	(100"(LATENCY!(\$(speed)*DLL_RCV_OFF_FRAMES))*DELT A_TIME)	185
ded Connection Connection	600	on constitution of the second	Surceceful Attenuate	Successful Att	468	4 Percent	- \$	(100'(DLL_RCV_OFF_FRAMES/DLL_BCASTS)*DELTA_TIME	17
Description of the second of t	COLO	enduality in the same		TOD Collings	643	A Darrent	24	(100'(DLL_COLLISIONS -	203
First Sense Response Path	803	803 icpConnecti-attires	TCP Connect Successes	TCP Successes	542	4 Percent	38+	(100'(DLL_ERRORS/DLL_COLL/SIONS)*DELTA_TIME)	202
Chate County County County	8	on Theman		TCP Connect Time	541	11 Milliseconds	1((msec)	((OLL_ENET_FRAMES/DLL_RCV_OFF_FRAMES)*DELTA_TI ME)	200
Charlenge Despessed Dath	803	Preshold/Jinjeffons	Threshold Violations	Triid Violations	719	13 Gauga	-	TR BURST	=
First Sense Response Path	803	transactions	Transactions	Transactions	441	18 Transactions	1/mln	(DIL RCV OFF FRAMES'60)	Ŕ
Empire Service Response Path	805	attempts	Attempts	Attempts	487	13 Gauge	1	(OLL BCASTS)	315
Emple Service Response Path	808	avallability	Service Availability	Service Avail	440	11 Millseconds	1 (%) 1 (msec)	HAYRICABLE TIME 100.0) ((LATENCY/DLL RCV OFF FRAMES) "DELTA TIME)	172
Empire Service Response Pain		avilla de la companya	Out Delle	Rad Dolle	120	4 Percent	*	(100.0-BAD_POLLS/GOOD_POLLS+MISSED_POLLS+BAD_ POLLS+REBOOTS))*DELTA_TIME	SS
Empire Service Respanse Path	ge	SUS DEGLOIG	SHO TOWN				1	((TR_SIGNAL_LOSS/DLL_RCV_OFF_FRAMES)*DELTA_TIM	223
Empire Service Response Path	902	dnsl.ookupTimeAvg	Avg. DNS Lookup Time (msec)	Avg DNS Time	810	17 Max Milliseconds	3(msec)	TR CONTENTION STREAMING	15
Empire Service Response Path	200	805 das Lookup I memax 875 das cokup TimeMin	Min. DNS Lookup Time (msec)	Min DNS Time	609	16 Min Millseconds	2/(msec)	TR BIT STREAMING	2
Cripire Service Neshorse Fein			F-find Attacheds	Esited Attentots	469	4 Percent	***	((100'((DLL_BCASTS - DLL_RCV_OFF_FRAMES)/DLL_BCASTS)*DELTA_TIME)	175
Empte Service Response Path	908	805 rated Attempts	Limit	Umit	474	11 Miliseconds	1 (msec)	(\$(spaed)*DELTA_TIME)	184
	96	oleo Della	Good Polls	Good Polls	#	4 Percent	1 %	(100.0*GOOD_POLLS/(GOOD_POLLS*MISSED_POLLS*EA  O_POLLS*REBOOTS) *DELTA_TIME	22
Empire Service Response Feur	3	mayReamnee	Maximum Response	Max Response	443	17 Max Milliseconds	3 (msec)	OLL BYTES	7
Erroire Service Response Path	508	805 minResponse	Minimum Response	Min Response	442	16 Min Miliseconds	2 (msac)	DIL FRAMES  1400 CHURSED POLI SURGOD POLI SAMISSED POLI SAB	T
Empire Service Response Path	908	missedPolls	Missed Polls	Missed Polis	<u></u>	4 Percent	7%	HOUSE THE PROPERTY TIME  AND POLICY STREET OF THE	88
4	308	O.S. carbonia	Rehoofs	Rebools	121	4(Percent	7 %	OLLS+REBOOTS)/DELTA_TIME	8
Crimie Service Nesponse real		noncoll.							

label	lefement type symbol	symbol	label	short label	var 6d junits 1d	label	units_type text	cal_expression  cal_id	2
Emain Condes December Onth	808	and commonted and	Decorate [m]	Resnonse/i (mi)	159	4 Perrent	*	(100*(LATENCY/(\$(cpood)*DLL_RCV_OFF_FRAMES))*DELT A TIMES	185
Frontin Sandre Rosponse Dath	200	805 successful Atlameter	Surceeff Attennie	Surgestul All	468	4 Percent	* *	L.RCV_OFF_FRAMESIDIL_BCASTS)*DELTA_TIME	1 2
A CONTRACTOR OF THE PARTY OF TH	200	encession resident					_	((DLL ENET FRAMES/DLL RCV OFF FRAMES) DELTA TI	Γ
Emplre Service Response Path	808	805 topConnectThmoAvg	Avg. TCP Connect Time (msec)	Avg TCP Con Time	605		1 (msac)		222
Empire Sarvice Response Path	808	tcpConnectTimeMax	Max, TCP Connect 11ms (msec)	Max TCP Con Time	607	17 Max Milliseconds	3 (msec)	TR_SET_RECOVERY_MODE	2
Empire Service Response Path	808	805 topConnectTimeMin	Min. TCP Cornact Time (mssc)	Min TCP Con Time	909	16 Min Milisaconds	2 (msac)		=
CHARLE SOLVED AUGUST PULL	200	Uarranceons	Lansacions	Lansacrions	44	10 I ransacrious	T I	┙	₹
Empire Service Response Path	808	transactionTimeAvg	Avg. Transaction Time (msec)	Avg Trans Time	611	11 Millseconds	1 (msec)	((TK_AUDRESS_COPIED/DLL_RCV_OFF_FRAMES)************************************	204
Empire Service Response Path	805	805 transactionTimeMax	Max. Transaction Time (msec)	Max Trans Time	613	17 Max Milliseconds	3 (msec)	L	22
Empire Service Response Path	808	transactionTimeMin	Min. Transaction Time (msec)	Min Trans Time	612	16 Min Milfiseconds	2 (msac)	L	2
System Pertition	3000	avellability	Availability	Aveilability	181	10 Total Time	1 (%)	(AVAILABLE_TIME*100.0)	7
System Parillion		- Charles		- H- C		1			- 6
100000	3000	ממתבחום	Dag Lais	280 1083	150	4 rerem	*	MULLS+REBOUIS)) DELIA IIME	a
System Partition	3000	3000 good Palts	Good Polls	Good Polls	16	4 Percent	***		6
System Partition	3000	3000 Inode Utilization	Inode Utilization	Imode UIII	581	4 Percent	*		F
System Partition	3000	3000 latency	Latency	Latency	208	11 Miliseconds	(msec)		ē
								+MISSED_POLLS+8	Г
System Partition	3000	3000 missedPolis	Missed Polis	Missed Polts	119	4 Percent	1 %	AD_POLLS+REBOOTS))*DELTA_TIME	8
System Partition	3000	partitionAllocationFallures	Partition Allocation Failures	Part Alloc Falls	157	5 Per Second	-	2	2
System Partition	3000	3000 partitionReads	Partition Reads	Part Reads	<u>\$</u>	0 Rate	0/860		<b>≈</b>
System Partition	3000	3000 PartitionReadsWrites	Partition Reads&Writes	Part Reads&Wrts	156	O Rate	O /sec		3
System Partition	3000	3000 partition Storage Capacity	Partition Storage Capacity	Part Stor Cap	152	7 Bytes	4 (byles)		Į.
System Pertition	3000	3000 partition StoregeFree	Pertition Storage Free	Part Stor Free	601	7 Bytes	4 (byles)	FRAME COPIED)	7
System Partition	3000	partitionStorageUsed	Partition Storage Used	Part Stor Used	101	7 87/88	4 (byles)	TR FRAME COPIED	श
See Doubling		3000 northern Hillyraffen	Partition Utilization	Part Util	153	4 Percent	*		62
System Partition	3000	partitionWrites	Perliton Writes	Part Writes	155		0 //sac	PACKETS_OÛT Z	8
							<u>.</u>	_	7
System Partition	3000	3000 reachability	Reachability	Reachability	182	10 Total Time	1(%)	((REACHABLE TIME:100.0'DELTA TIME(TOTAL TIME:1.0))	F
			1	ntocto	Ş	/ Dornant	*		8
DAY MY Corners Dodillor	2000	3004 evellability	Availability	Availability	181	10 Total Time	1(36)	Ц	1
Company of the compan		American de la companya de la compan						_	e.
BMC NT System Partition	3004	badPolis	Bad Polls	Bad Polls	170	4 reroem	R	HAND OF GOOD POIL SYGOOD POIL SAMISSED POLLS + BA	
TO THE STATE OF TH	- June	3004 panadballa	Good Polls	Good Poffs	118	4 Percent	*	4	60
RAC NI System Partition	3001	3001 listency	Latency	Latency	208	11 Milliseconds	(msec)	LATENCY	ē
						!	_;		ě
BMC NT System Partition	300	missedPolls	Missed Polls	Missed Polls	118	4) Percent	2,00	Of October 1980	2
BMC NT System Partition	3001	portitionStorageCepacity	Partition Storage Capacity	Part Stor Cap	151	7 Bytes	4 (bytes)	TR FRAME COPIED	R
BINC NI SYSTEM PERTUION	300	soot parmonsmendensen	Para para para para para para para para					_	- 6
BMC NT System Partition	3001	3001 partitionUtilization	Partition Utilization	Pert Util	153	4 Percent	28	100.0 DELTA TIME TR FRAME COPIED/IK FREQUENCY	T
			7	Deschahility	- 28	10 Total Time	1(%)	(REACHABLE_TIME*100.0*DELTA_TIME/(TOTAL_TIME*1.0))	۶
BMC NT System Partition	300	3001 reachablury	Vocation:						5
BMC NT System Portition	3001	3001 reboots	Reboots	Reboots	121	4 Porcont	8	OLLS+REBOOTS)/DELTA TIME	3
BMC UNIX System Partition	3005	3002 availability	Availability	Availability		10 Total Time	(A)	(1900 0'BAD POLLS/IGOOD POLLS+MISSED_POLLS+BAD_)	Π
	2006	- Constitution of the Cons	Bad Polls	Bad Polls	120	4 Percent	1 %		8
BING UNIX SYSTEM PERBUGA	3005	DEUTURS					3		67
BMC UNIX System Partition	3005	3002 goodPolts	Good Polls	Good Polls	148	4 Percent	1 /msec)		8
BMC UNIX System Pertition	3002	latency	Latency	Latericy	007	200000000000000000000000000000000000000		HWISSED_POLLS+B	
and and Sustain Daries	2006	3007 mineantholls	Missed Polts	Missed Polis	119	4 Percent	1 %	╛	8
משכ מוויי באומונו מוביימו		The color and							

BMC UNIX System Partition	3002	nardificanStorageCanacity	Partition Storage Capacity	Part Stor Cap	152	7 Bytes	4 (bytes)	TR_ FREQUENCY	24
BMC UNIX System Partition	3002	3002 partition Storego Used	Partition Storage Used	Part Stor Used	151	7 Bytes	4 (bytes)	TR FRAME COPIED	52
BMC UNIX System Partition	3002	3002 partition Utilizetion	Partition Utilization	Pert Util	53	4 Percent	*	100.0*DELTA_TIME*TR_FRAME_COPIED/TR_FREQUENCY	62
SMC UNIX System Partition	3002	3002 reachability	Reachability	Reachability	182	10 Total Time	1(%)	(REACHABLE TIME*100.0*DELTA TIME/(TOTAL TIME*1.0))	92
BMC tinix System Partition	2000	retracte	Detront	Bahoole	Ş	A Domest	7	(100,0*REBOOTS/(GOOD_POLLS+MISSED_POLLS+BAD_POLLS+BAD_POLLS+BAD_POLLS+BAD_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+MISSED_POLLS+MISSED_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POLLS+BAD_POLLS+MISSED_POL	8
INIX Process Set	3100	3100 availability	Availability	Availability	<u> </u>	10 Total Time	(36)	IAVAILABLE TIME*100.0)	3 15
UNIX Process Set	3100	badPolls	Bad Polls	Bad Polls	- 22	AParcent	3	(100,0°BAD_POLLS(GOOD_POLLS+MISSED_POLLS+BAD_	8
UNIX Process Set	3100	coulifization	CPU Utilization	CPU Utilization	95	4 Percent	6 %	MILESTREBOUIS) DELLA TIME	gr
UNIX Process Set	3100	3100 diskBlockReads	Disk Block Reads	Disk Blk Reads	288	ORate	Ofsec	OII TRANSITS	7
UNIX Process Set	3100	diskBiockWrites	Disk Block Writes	Disk Blk Writes	283	0 Rate	Ol/sec	DLL ENET FRAMES	8
UNIX Process Set	3100	goodPolis	Good Polls	Good Polls	- 2	4 Percent	*	(100.0°GOOD_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD)	1
JNIX Process Sel	3100	3100 hardPageFaults	Hard Page Faults	Hard Page Faults	565	0 Rate	0/890	TR SIGNAL LOSS	F
UNIX Process Set	3100	3100 hardPageFaultsPct	Hard Page Faults %	Hard Pg Feutts %	573	4 Percent	*	100.0 DELTA_TIME (TR_SIGNAL_LOSS/(TR_SIGNAL_LOSS) +TR_BIT_STREAMING)	213
UNIX Process Set	3100	3100 missedPolis	Missed Polls	Missed Polls	119	4 Percent	8	(100.0*MISSED_POLLS/(GOOD_POLLS+MISSED_POLLS+B AD POLIS+REPROTS), THE TATME	8
UNIX Process Set	3100	3100 networkMessages	Network Messages	Network Mags	707	0 Rate	0/860	DLL COLLISIONS+DLL EPRORS	312
UNIX Process Set	3100	3100 networkMessagesin	Network Messages In	Net Msgs in	588	0 Rate	0 /sec	DILCOLLISIONS	6
UNIX Process Set	3100	3100 networkMessagesOut	Network Messages Out	Net Msgs Out	289	0 Rate	oes/0	DULERRORS	9
UNIX Process Set	3100	3100 physicalMemoryUsed	Physical Memory Used	Physical Memory	45	7/Bytes	4 (bytes)	DIL MCASTS	2
UNIX Process Set	3100	3100 soft Page Fauts	Soft Page Faults	Soft Page Faults	284	0 Rate	0 /880	TR BIT STREAMING	4
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UNIX Process Set	3400	3100 lotalPage Faulls	Total Page Faults	Total Pg Faults	575	0 Rate	0/880	(TR SIGNAL LOSS+TR BIT STREAMING)	215
UNIX Process Set	3100	3100 virtualMemoryUsed	Virtual Memory Used	Vir Mem Used	150	7 Bytes	4 (bytes)	Di.(_BCASTS	4
NT Process Set	3101	3101 avallability	Availability	Availability	181	10 Total Time	1 (%)	(AVAILABLE TIME 100.0)	F
NT Process Set	3101	3101 badPo®s	Bad Polls	Bad Polls	120	4 Percent	**	(100.0°84D_POLLS/(GOOD_POLLS+MISSED_POLLS+BAD_  POLLS+REBOOTS))*DELTA_TIME	88
NT Process Set	3101	coultifization	CPU Utilization	CPU Utilization	265	4 Percent	1 %	DLL_BYTES	7
NT Process Set	3101	3101 anodPolis	Good Polls	Good Polls	118	4 Percent	11%	(100.0°6000_POLLS/(6000_POLLS+MISSED_POLLS+BA   0_POLLS+REBOOTS)}*DELTA_TIME	57
T Dronges Col	3404	3101 missadPolls	Massed Polls	Missed Polls	119	4 Percent	- 28	(100.0*MISSED_POLLS/GOOD_POLLS+MISSED_POLLS+B AD POLLS+REBOOTS)*DELTA_TIME	88
NT Process Set	3101	3404 mysical Memory Used	Physical Memory Used	Physical Memory	345	7/Bytes	4 (bytes)	DIL MCASTS	3
NI Process Set	3101	threads	Threads	Threads	563	19 Size	4	TR SET RECOVERY MODE	12
NT Process Set	3101	3101 totalPageFaults	Total Page Faults	Total Pg Faults	575	0 Rate	0/sec	(TR SIGNAL LOSS+TR BIT STREAMING)	132
UNIX Process Set Excluded	3200	3200 availability	Availability	Availability	ē	10 Total Time	1(%)	(AVAILABLE_TIME*105.0)	T
Mily Openion Col Eveludad	2200	22000 had Dolle	Bad Polls	Bad Polls	52	4 Percent	86	POLLS+REBOOTS))*DELTA_TIME	8
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MIX Drange Cot Continued	2200	22001 dick Block Roads	Disk Block Reads	Disk Bik Reads	989	0 Rate	0/890	DLL_TRANSITS	
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			all of the C	. Sond Polls	45	4 Percent	38	(100,0*GOOD_POLLS*MISSED_POLLS*BISSED_POLLS*BA  D POLLS+REBOOTS) *DELTA_TIME	5
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NIX Process Set Excluded	3200	physicalMemoryUsed	Physical Memory Used .	Physical Memory	145	7 Bytes	4 (bytes)	DLL MCASTS	7
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10 iB Token Klag - Delay		Token Ring	Over Utilized	Minor	15	TOT 09	bandwidth	apope	8	-			
1018 Token Ring - Detay	-	Token Ring	Too many soft errors	Minor	15	10T 09	softErrors	above	0.1	L		F	
1019 Taken Ring - Dalmy	11	MB2 LAN Port	Brandrasi storm	Major	41	A5109	ronUnicast	apope	83.89	101	nonthicasi	avodn	200
Ring - Dolay	¥ .	MB2 LAN Port	Dwar Utilized	Major	15	60 TOT	tsothidth	nbave	20				
1019 Toton Ring - Octor	7	MB2 LAN Purt	Over Utilized in	Major	15	60/101	tandwidthin	99096	23				
1010 Token Ring - Dolay	7	MIB2 LAN Port	Dwer Utilized Out	Major	15	50 TOT	bandwidthQui	grode	3	-			
1019 Taken Ring - Oetay	1	MIB2 LAN Port	The many discards	Atalor	\$		discardsOntPet	apare					Ī
1034 Token Ring - Feiture	_	tokonRing	LAN Down	Critical	L	3D AVAIL	evellability			-			Ī
1004 Token Ring - Peltun	-	tokenRing	Speed act too low	Minor	ē	10103	bandwidth	above	ş	L			
1034 Token Ring - Paltyre	-	hokenRing	Too many hard arrors	Major	15	TOT	hardenors	appre	6.9	-			
1034   Token Ring - Halaire	7	MIB2 LAN Prof	LAN DOWN	College	-	30 AVAIL	nyalistatiy			ŀ			
1034(Token Ring - Failing	ř.	MIB2 LAN Port	Recoved from darrards	Minor	15	TOTION	disemisinPet	ribave					
1034 Token Ring - Falans	~	MIB2 LAN Port	Spreed set too low	Mnor	P	50TOT	burdwidthin	apor.a	5			-	
1034 Foken Khrg - Esikira	2	MIB2 LAN Port	Тро тоту отрез	Minor	15	50 TOT	anasPct	above					
1053   Token Ring - Unissual Workload	-	totenRing	Unusually high breadcasts	Warning	15	N) 09	trendensta	Show	6'66	1011	bandwidth	BADQ4	10
1053 Taken Ring - Unusual Workload	-	tokenRing	Unusually high multicasts	Warrdng	15	AD 09	multicasts	above	808	101	bandwidth	apone	10
1053   Tokes Ring - Unusual Workload		tokenRing	Unusually high unicasts	Werning	15	COLUV	unicast	abave	90.9	101	benchvidth	apove	10
1053 Token Rhg - Unusied Workland	~	MIB2 LAN Port	Unusually high frames in	Warning	15	SOLUV	framesin	эроле	6.99	1)101	tandwid:hin	abova	10
Token King - Chustad Workman	7	ANBZ LAN Port	Unusually high frames out	Waming	15	60 UV	ImmesOut	avodn	568	10111	tondelition	mpowe	10
1033 Tokan Rhy - Umsuci Workland	_	MIB2 LAN Port	Unusually high one-unitalst frames in	Warning	15	SO UV	ntriUnitastin	11pmo	6.68	1011	Smothfelltin	attowa	9
1053   Tokon Ring - Unusual Workload	7	MB2 LAN Port	Unusually high ron-unionst insmes out	Warning	16	AT(09	nonUnicastOut	above	0.04	101	transdwidthOut	apone	10
1035 WAN - Fature	190	WAN	Received frame discards	Major	-5	50 TOT	dscardsinPct	abova					
1015 WAN - Fellure	ş	WAN	Speed in set ino low	Mhor	٩	60TOT	bandwidhin	ahoue	8				
1035/WAN - Falture	9	WAN	Speed Out set too fow	Mhor	₽	60 TOT	bandwidthOut	spove	ş				
1035 WAN - Faitre	901	WAN	Тео талу стога	Major	15	60/TOT	erroraPct	above	•	-			
WAN - Folum	901	WAN	WAN Link Down	CAlical		30 AVAIL.	availebility						
054 WAN - Umususi Workload	901	WYW	Unusually high frames in	Wamfrg	ž	60 UV	famesh	abovo	868	1011	bandwidthin	above	Ç
1054 WAN - Unusual Workload	8	WYM	Unusually high frames out	Warraing	15	60 CV	framesOut	ароле	668	1011	pendwicthOut	avoda	10
1020 WAN 58K - Delay	8	WAN	Over Utilized in	Whor	15	60 TOT	Danch-Adhlin	above	8				
1020 WAN 56K - Delay	9	WAN	Over Utilbed Out	Whor	15	60/TOT	bandwidth Qui	abows	8				
1020 WAN 58K - Deby	8	WAN	Too many diseards	Minor	15	60/TOT	discordsOutPet	ewox(e)	<u> </u>				
1021 WAN TI - Delay	8	WAN	Over Utilized in	Minor	15	60 TOY	bandwidth la	appare	94	_			
1021 WAN YI - Delay	8	WAN	Over Utilized Out	Minor	16	50707	<b>DemokaldfhOut</b>	avoda	22				
1021 WAN TI - Delay	8	WAN	Too many discards	Minor	16	60 TOT	dscardsOutPct	epove	1				
WAN 13 - Delay	100	WAN	Over Utilized in	Minor	13	earror	bandwidthin	above	99	Н			
tozziwan 13 - Delov	1001	WAN	Over Utilized Out	Withor	15	10100	benchwidth Qu.t	above	06				

## WHAT IS CLAIMED IS:

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1. A method of monitoring an element in a computer network, said method 1 comprising: 2 3 monitoring a preselected variable relating to said element; defining a threshold for the monitored preselected variable; establishing a sliding window in time; 5 repeatedly generating a time above threshold value, said time above threshold value 6 7 being a measure of an amount of time during which the monitored variable exceeded the threshold during the sliding window of time; 8 detecting when the time above threshold value exceeds a condition window value; 9 10 and in response to detecting when the time above threshold value exceeds said condition 11 12 window, generating an alarm. 1

- 2. The method of claim 1 further comprising after generating an alarm, maintaining the alarm at least as long as the time above threshold value exceeds a clear window value.
- 3. The method of claim 2 wherein said clear window value is equal to said condition window value.
  - 4. The method of claim 3 further comprising:

monitoring a plurality of variables relating to said element, said preselected variable being one of said plurality of variables; and

for each of the plurality of monitored variables, defining a corresponding threshold for that other variable, wherein the time above threshold value is a measure of an amount of time during which any one or more of the monitored variables exceeded its corresponding threshold during the corresponding sliding window of time.

5. The method of claim 1 wherein the step of defining the threshold for the preselected variable comprises:

computing an average value for the preseleted variable based on values obtained for the preselected variable over a corresponding prior period;

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5	defining an excursion amount; and
6	setting the threshold equal to a sum of the average value plus the excursion amount.
1	6. The method of claim 5 wherein the corresponding period of time is less than a day.
1	7. The method of claim 6 wherein the corresponding period of time is a particular
2	hour period of a day.
1	8. The method of claim 6 wherein the step of computing the average comprises
2	computing a mean value for the preselected variable using values obtained for that
3	preselected variable for the same hour period of the same day of the week for a
4	predetermined number of previous weeks.
1	9. The method of claim 5 wherein the step of defining an excursion amount
2	comprises:
3	computing a standard deviation for the preselected variable based on values obtained
4	for the preselected variable over a predetermined period of time; and
5	setting the excursion amount equal to K times the computed standard deviation,
6	wherein K is a positive number.
1	10. The method of claim 9 wherein the step of computing the standard deviation
2	comprises computing the standard deviation using values obtained for that preselected
3	variable for the same hour period of the same day of the week for a predetermined number of
4	previous weeks.
1	11. The method of claim 1 wherein the step of defining the threshold for the
2	preselected variable comprises:
3	defining an excursion amount; and
4	setting the threshold equal to H less the excursion amount, where H is a positive
5	number.
1	12. The method of claim 11 wherein the step of defining an excursion amount
2 .	comprises:

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computing a standard deviation for the preselected variable based on values obtained

4	for the preselected variable over a predetermined period of time; and
5	setting the excursion amount equal to K times the computed standard deviation,
6	wherein K is a positive number.
1	13. A method of monitoring an element in a computer network, said method
2	comprising:
3	defining a profile for that element, said profile including a plurality of different alarn
4	rules, each of said different alarm rules establishing an alarm test for a corresponding one or
5	more variables;
6	detecting when the alarm test for any one or more of the plurality of different alarm
7	rules is met;
8	repeatedly generating a time above threshold value, said time above threshold value
9	being a measure of an amount of time during which any one or more of the alarm tests has
10	been met during a preselected prior window of time;
11	detecting when the time above threshold value exceeds a condition window value;
12	and .
13	in response to detecting when the time above threshold value exceeds said condition
14	window, generating an alarm.
1	14. The method of claim 13 further comprising after generating an exception,
2	maintaining that exception at least as long as the time above threshold value exceeds a clear
3	window value.
1	15. A method of displaying on a computer display screen historical performance of
2	an element on a network, said method comprising:
3	monitoring performance of the element;
4	for each of the plurality of time slots, deriving a measure of performance for the
5	element from its monitored performance;
6	for each of a plurality of time slots, computing an average value for the measure of
7	performance of the element;
8	for each of the plurality of time slots, computing a variability for the measure of
9	performance; and

on the computer display screen and for each of the plurality of time slots: (1)

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displaying a first indicator of the computed average value for that time slot; (2) a second 11 indicator of the computed variability for that time slot; and (3) a third indicator of the derived 12 measure of performance for that time slot. 13 16. A computer program stored on a computer-readable medium for causing a 1 2 computer system to perform the functions of: monitoring a preselected variable relating to an element of a computer network; 3 defining a threshold for the monitored preselected variable; 4 establishing a sliding window in time; 5 6 repeatedly generating a time above threshold value, said time above threshold value being a measure of an amount of time during which the monitored variable exceeded the 7 threshold during the sliding window of time; 8 9 detecting when the time above threshold value exceeds a condition window value; and 10 in response to detecting when the time above threshold value exceeds said condition 11 window, generating an alarm. 12 1 17. A computer program for monitoring an element in a computer network, said program stored on a computer-readable medium for causing a computer system to perform 2 3 the functions of: defining a profile for that element, said profile including a plurality of different alarm 4 5 rules, each of said different alarm rules establishing an alarm test for a corresponding one or 6 more variables; detecting when the alarm test for any one or more of the plurality of different alarm 7 8 rules is met: repeatedly generating a time above threshold value, said time above threshold value 9 being a measure of an amount of time during which any one or more of the alarm tests has 10 been met during a preselected prior window of time; 11 12 detecting when the time above threshold value exceeds a condition window value; 13 and

14 in response to detecting when the time above threshold value exceeds said condition window, generating an alarm. 15 1 18. A computer program for displaying on a computer display screen historical performance of an element on a network, said program stored on a computer-readable 2 medium for causing a computer system to perform the functions of: . 3 monitoring performance of the element; 4 for each of the plurality of time slots, deriving a measure of performance for the 5 element from its monitored performance; 6 for each of a plurality of time slots, computing an average value for the measure of 7 8 performance of the element; for each of the plurality of time slots, computing a variability for the measure of 9 performance; and 10 on the computer display screen and for each of the plurality of time slots: (1) 11 12 displaying a first indicator of the computed average value for that time slot; (2) a second indicator of the computed variability for that time slot; and (3) a third indicator of the derived 13 measure of performance for that time slot. 14

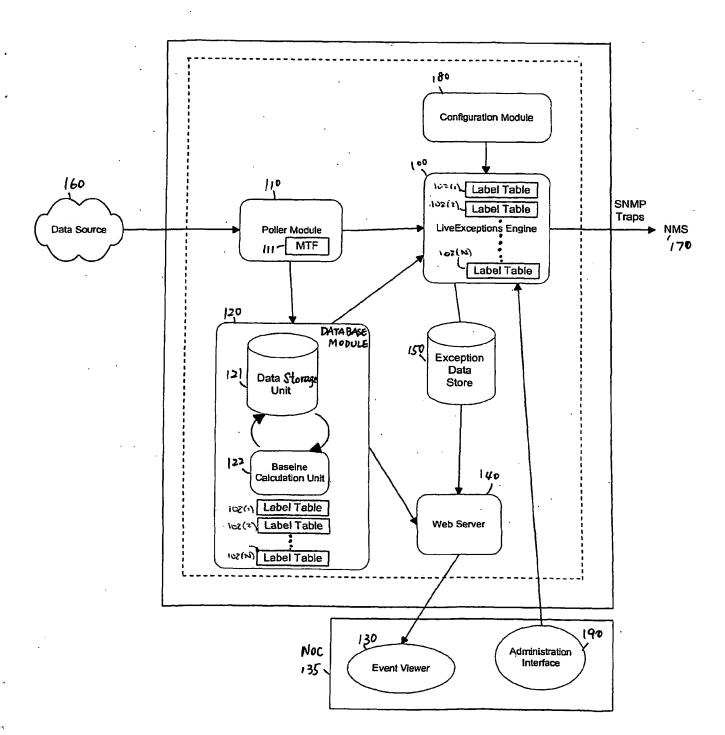


Fig. 1

```
MTF 111
mib mib2
  file mib2.mib
 version 2
   agent "MIB2 (wan port)"
   translation
       mediaType = -100
       mediaSpeed = ifSpeed%
       operStatus = ifOperStatus%
       operStatusLastChange = ifLastChange%
       variable1 = ifInUcastPkts + ifInNUcastPkts +
ifInErrors + ifInDiscards + ifInUnknownProtos
       variable2 = ifInOctets
       variable3 = ifInNUcastPkts
       variable4 = ifInNUcastPkts + ifOutNUcastPkts
       variable10 = ifInErrors
       variable9 = ifInDiscards
       variable16 = ifInUnknownProtos
       variable22 = ifInUcastPkts + ifInNUcastPkts +
ifOutUcastPkts + ifOutNUcastPkts + ifInErrors + ifInDiscards
+ ifInUnknownProtos
       variable23 = ifInOctets + ifOutOctets
       variable24 = ifInErrors + ifOutErrors
       variable25 = ifInDiscards + ifOutDiscards
```

22

dataSourceType dataSourceType
presVarListName presVarListName
protocol protocol

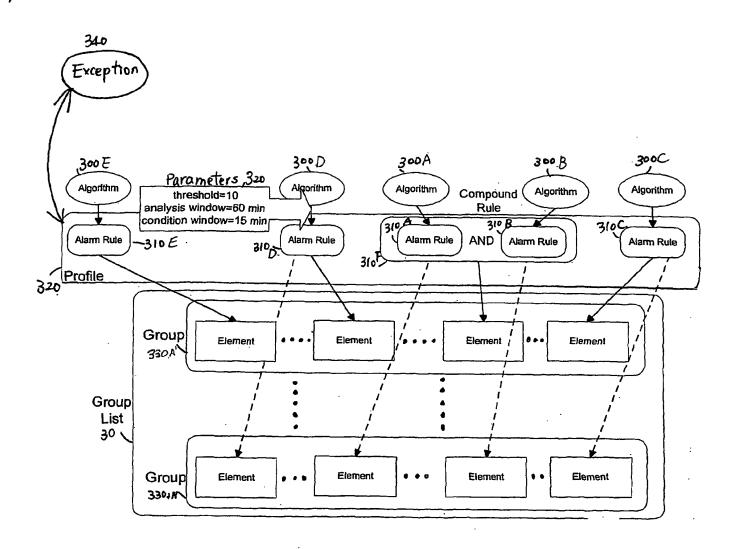


Fig 3

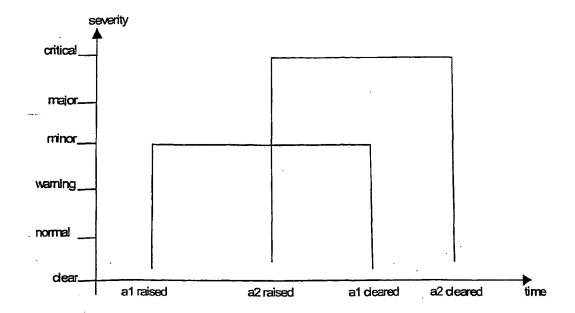


FIG. 4

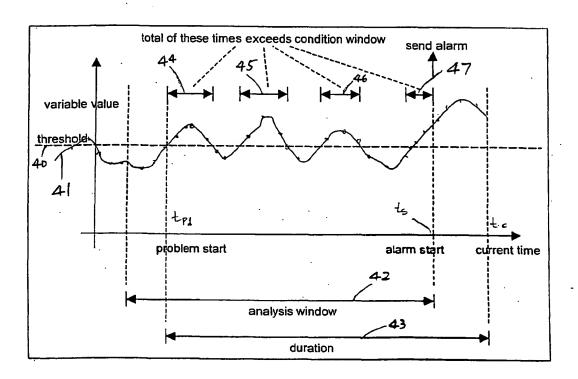


FIG.5

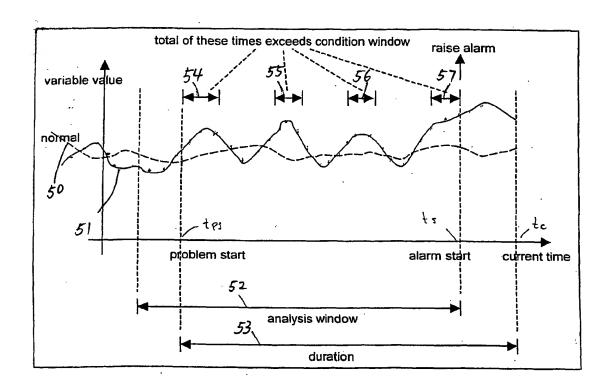
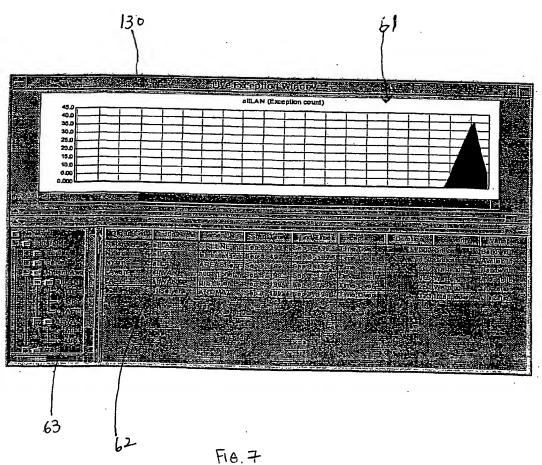


FIG. 6



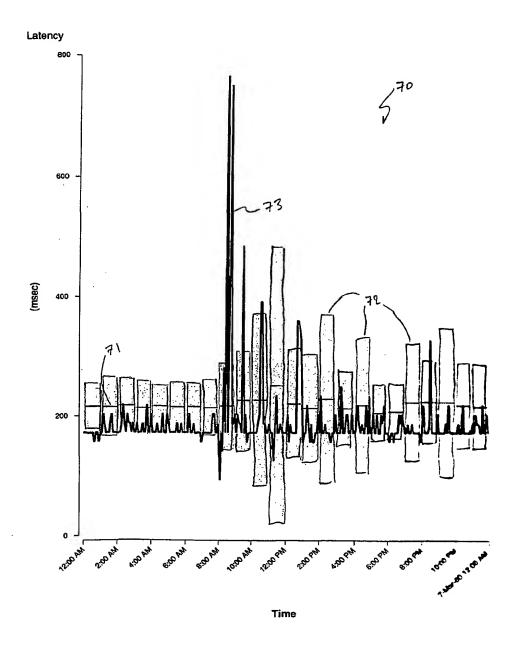


FIG.8

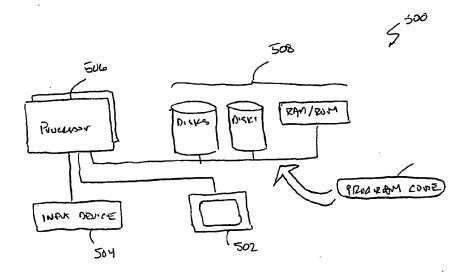


FIG. 9

## INTERNATIONAL SEARCH REPORT

International application No. PCT/US01/19780

A. CLASSIFICATION OF SUBJECT MATTER IPC(7): G06F 15/16 US CL: 709/224						
According to International Patent Classification (IPC) or to bot	h national classification and IPC					
B. FIELDS SEARCHED						
Minimum documentation searched (classification system followed by classification symbols)  U.S.: 709/224						
Documentation searched other than minimum documentation to the	Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched					
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) west						
C. DOCUMENTS CONSIDERED TO BE RELEVANT						
Category* Citation of document, with indication, where a	ppropriate, of the relevant passages Relevant to claim No.					
X, US 6,021,437 A (CHEN et al) 1 Febru	ary 2000, col. 8, lines 54-57, 1-18					
X, P US 6,081,840 A (ZHAO) 27 June 20	00, col. 3, lines 11-15 1-18					
	•					
Further documents are listed in the continuation of Box C. See patent family annex.						
<ul> <li>Special categories of cited documents:</li> <li>"A" document defining the general state of the art which is not considered</li> </ul>	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand					
to be of particular relevance	the principle or theory underlying the invention  "X" document of particular relevance; the claimed invention cannot be					
"L" document which may throw doubts on priority claim(s) or which is	considered novel or cannot be considered to involve an inventive step when the document is taken alone					
cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is					
"O" document referring to an oral disclosure, use, exhibition or other means	combined with one or more other such documents, such combination being obvious to a person skilled in the art					
*P* document published prior to the international filing date but later than the priority date claimed	"&" document member of the same patent family					
Date of the actual completion of the international search	Date of mailing of the international search report					
27 AUGUST 2001	13 SEP 2001					
Name and mailing address of the ISA/US Commissione: of Patents and Trademarks	Authorized officer					
Box PCT Washington, D.C. 20231	DAVID Y. ENG					
Facsimile No. (703) 305-3230	Telephone No. (703) 305-9691					